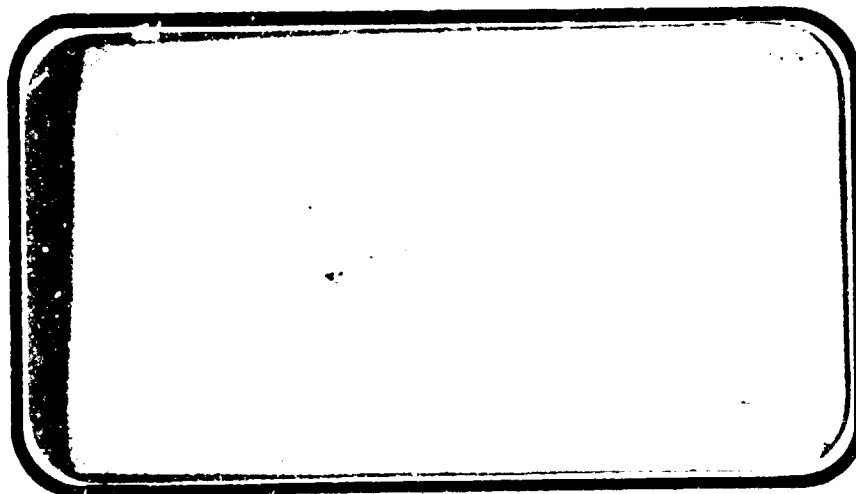


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STATIC STABILITY AND CONTROL
EFFECTIVENESS OF MODELS 12-0 AND 34-0
OF THE VEHICLE 3 CONFIGURATION

By

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STATIC STABILITY AND CONTROL
EFFECTIVENESS OF MODELS 12-0 AND 34-0
OF THE VEHICLE 3 CONFIGURATION

By

E. C. Allen* and T. Tuttle*

ABSTRACT

This report presents static stability and control effectiveness characteristics of two 0.004 scale models of the vehicle 3 configuration. The models have been designated 12-0 and 34-0, but are referred to as 139B and 139 respectively in this report. The components investigated consisted of a single aft body, vertical/rudder, OMS pods with two interchangeable wings, four interchangeable forward bodies, four trimmers, and a spoiler.

The test was conducted in the NASA/MSFC 14 x 14 Inch Trisonic Wind Tunnel over a Mach number range from 0.6 to 4.96. Angles of attack from 0 to 60 degrees and angles of sideslip from -10 to 10 degrees at 0, 10, 20, 30, and 40 degrees angle of attack were tested. Elevon, body flap, and speed brake deflection composed the parametric considerations. No grit was placed on the models during the test.

This document has been divided into three volumes. Volume I contains most of the longitudinal data. Volume II presents the lateral-directional characteristics and some additional longitudinal data. The tabulated source data and incremental data figures are presented in Volume III.

* Rockwell International

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- (A): CLAFO, CLMAFO, CLMCLO, CLALFA, CDAFO, CDFAFO, L/D_{MAX},
ALFLDM vs. Mach
- (B): CL, CN, CLM, XCP/L vs. ALPHA; CL, CN vs. CLM; CD, CDF, CA,
CAF, CAB, L/D vs. ALPHA: CL vs. CD
- (C): CLM vs. ALPHA
- (D): CY, CYN, CBL vs. BETA
- (E): CYBETA, CYNBET, CBLBET vs. ALPHA
- (F): CYBETA, CYNBET, CBLBET vs. Mach
- (G): DCL, DCN, DCLM, DCD, DCA, DCAB vs. ALPHA
- (H): DCL, DCD, DCN, DCA, DCLM vs. DBF

NOMENCLATURE
General

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
a		speed of sound; m/sec, ft/sec
C _p	CP	pressure coefficient; $(p_1 - p_\infty)/q$
M	MACH	Mach number; V/a
p		pressure; N/m ² , psf
q	Q(NSM) Q(PSF)	dynamic pressure; $1/2\rho V^2$, N/m ² , psf
RN/L	RN/L	unit Reynolds number; per m, per ft
V		velocity; m/sec, ft/sec
α	ALPHA	angle of attack, degrees
β	BETA	angle of sideslip, degrees
ψ	PSI	angle of yaw, degrees
ϕ	PHI	angle of roll, degrees
ρ		mass density; kg/m ³ , slugs/ft ³

Reference & C.G. Definitions

Ab		base area; m ² , ft ²
b	BREF	wing span or reference span; m, ft
c.g.		center of gravity
$\frac{l}{c}$	LREF	reference length or wing mean aerodynamic chord; m, ft
S	SREF	wing area or reference area; m ² , ft ²
	MRP	moment reference point
	XMRP	moment reference point on X axis
	YMRP	moment reference point on Y axis
	ZMRP	moment reference point on Z axis

SUBSCRIPTS

b	base
l	local
s	static conditions
t	total conditions
∞	free stream

NOMENCLATURE (Continued)

Body-Axis System

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
C_N	CN	normal-force coefficient; $\frac{\text{normal force}}{qS}$
C_A	CA	axial-force coefficient; $\frac{\text{axial force}}{qS}$
C_Y	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
C_{A_b}	CAB	base-force coefficient; $-(CPBAVG) \frac{A_b}{S_{ref}} - (CPC) \frac{A_c}{S_{ref}}$
C_{A_f}	CAF	forebody axial force coefficient, $C_A - C_{A_b}$
C_m	CIM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS l_{REF}}$
C_n	CYN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS b}$
C_l	CTL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS b}$

Stability-Axis System

C_L	CL	lift coefficient; $\frac{\text{lift}}{qS}$
C_D	CD	drag coefficient; $\frac{\text{drag}}{qS}$
C_{D_b}	CDB	base-drag coefficient; $\frac{\text{base drag}}{qS}$
C_{D_f}	CDF	forebody drag coefficient; $C_D - C_{D_b}$
C_Y	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
C_m	CIM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS l_{REF}}$
C_n	CIN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS b}$
C_l	CSL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS b}$
L/D	L/D	lift-to-drag ratio; C_L/C_D

NOMENCLATURE (CONTINUED)

ADDITIONS TO NOMENCLATURE

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
δ_{BF}	BDFLAP	body flap, surface deflection angle, positive deflection, trailing edge down; degrees.
δ_e	ELEVTR	elevator, surface deflection angle, positive deflection, trailing edge down; degrees.
δ_{SB}	SPDBRK	speed brake, split rudder inclusive deflection angle between outer surface, left split rudder trailing edge left and right split rudder trailing edge right, $\delta_{rF} = (\delta_{rL} + \delta_{rR})/2$, positive deflection; degrees. SPDBRK = 999.99, basic setting. See Dataset Collation Sheets.
δ_s	SPOILR	spoiler, surface deflection angle, positive deflection, trailing edge down; degrees.
$C_{L\alpha}$	CLALFA	derivative of lift coefficient with respect to alpha, (alpha = $\pm 5^\circ$); per degree.
$C_{y\beta}$	CYBETA	derivative of side force coefficient with respect to beta (beta = $\pm 5^\circ$); per degree.
$C_{n\beta}$	CYNBET	derivative of yawing moment coefficient with respect to beta (beta = $\pm 5^\circ$); per degree, body axis system.
$C_{l\beta}$	CBLBET	derivative of rolling moment coefficient with respect to beta (beta = $\pm 5^\circ$); per degree, body axis system.
a.c.	XCP/L	local longitudinal aerodynamic center based on body length; moment reference point minus the local longitudinal static stability derivative; $XCP/L = [(XMRP/L_{Body}) - (CLM/CN)(LREF/L_{Body})]$; body axis.
$C_{D\alpha=0}$	CDAFO	drag coefficient at zero angle of attack (alpha = 0).
$C_{DF\alpha=0}$	CDFAF0	forebody drag coefficient at zero angle of attack (alpha = 0).

NOMENCLATURE (CONTINUED)

ADDITIONS TO NOMENCLATURE

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
$C_{L\alpha=0}$	CLAFO	lift coefficient at zero angle of attack ($\alpha = 0$).
$C_{m\alpha=0}$	CLMAFO	pitching moment coefficient at zero angle of attack ($\alpha = 0$).
$C_m(C_L = 0)$	CLMCLO	pitching moment coefficient at zero lift coefficient ($C_L = 0$).
L/D_{\max}	L/DMAX	maximum lift-drag ratio.
$\alpha(L/D_{\max})$	ALFLDM	angle of attack at maximum lift-drag ratio; degrees.
ΔC_A	DCA	incremental axial force coefficient, algebraic difference of two runs.
ΔC_{AB}	DCAB	incremental base axial force coefficient, algebraic difference of two runs.
ΔC_{AF}	DCAF	incremental forebody axial force coefficient, algebraic difference of two runs.
ΔC_D	DCD	incremental drag coefficient, algebraic difference of two runs.
ΔC_{DF}	DCDF	incremental forebody drag coefficient; algebraic difference of two runs.
ΔC_L	DCI	incremental lift coefficient, algebraic difference of two runs.
ΔC_m	DCIM	incremental pitching moment coefficient, algebraic difference of two runs.
ΔC_N	DCN	incremental normal force coefficient, algebraic difference of two runs.
$\Delta \delta_{BF}$	DEF	incremental body flap, incremental difference be- tween two runs, surface deflection angle, positive deflection, trailing edge down; degrees.

NOMENCLATURE (CONCLUDED)

ADDITIONS TO NOMENCLATURE

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
$\Delta\delta_e$	DE	incremental elevon, algebraic difference of two runs, surface deflection angle, positive deflection, trailing edge down; degrees.
$\Delta\delta_s$	DS	incremental spoiler, incremental difference between two runs, surface deflection angle, positive deflection, trailing edge down; degrees.

MODEL DESCRIPTION

The model geometry (0.004-scale) is shown in figure 2. The model was constructed using aluminum for the wing and stainless steel for the body, elevons, fins, speed brakes, and trimmers. The capability to obtain wing-body-tail, wing-body and body-alone data was provided. In addition, the model had deflected elevons, speed brakes, and body flap for the following combinations:

$$\delta_e = 0, +15^\circ, -20^\circ, -40^\circ \text{ (elevon)}$$

$$\delta_{SB} = 0, 24.92^\circ, 54.92^\circ \text{ (speed brake)}$$

$$\delta_{BF} = 0, 13.75^\circ, -14.25^\circ \text{ (body flap, basic)}$$

$$\delta_{BF} = 0, 13.75^\circ, -22.75^\circ \text{ (body flap, large area)}$$

Deflection angles were obtained by replacing the control surface with a separate surface set to the desired angle.

The model assembly had the following components:

Aft body - stainless steel

Vertical - stainless steel

Speed brakes - stainless steel

OMS pods - stycast

Forward body (4 interchangeable) - stainless steel

1 - per VL70-000139

1 - per VL70-000139, alternate cambered

1 - per VL70-000139B

1 - per VL70-000139B, alternate cambered

Wing and elevons (2 interchangeable) - aluminum

1 - per VL70-000139

1 - per VL70-000139B

Trimmers - four trimmers were tested with the VL70-000139 forward body (see Table IV).

Spoiler - one set of spoilers was tested with the VL70-000139 model configuration, (see sketch, Figure 4).

The model-balance combination was mounted to the tunnel pitch sector using the MSFC double knuckle sting numbers 1 and 3. The alpha and beta schedules noted in Table II required the following sting settings:

MSFC DOUBLE KNUCKLE STING NUMBER 1

<u>α Range (deg)</u>		<u>Offset (deg)</u>	<u>Sting Adapter No. Hole</u>		<u>Balance Adapter No. Hole</u>	
A	0 to 20	10	1	53	2	9
B	5 to 25	15	1	53	2	10
H	- 10 to 10	0	1	53	113	1
A	0 to 20	10	1	53	113	2
E	20 to 40	30	1	54	113	5
K	40 to 60	50	1	51	1	4

MSFC DOUBLE KNUCKLE STING NUMBER 3

<u>α Range (deg)</u>		<u>Offset (deg)</u>	<u>Sting Adapter No. Hole</u>		<u>Balance Adapter No. Hole</u>	
A	0 to 20	10	3	61	3	23

Pressure transducers were used to measure base pressures. Two base pressure tubes and one cavity pressure tube were used. The base pressure tubes were "teed" together. The base and cavity areas are shown in figure 3 along with the base pressure tube locations.

CONFIGURATIONS INVESTIGATED

Configurations investigated consisted of the 0.004 scale models 34-0 and 12-0 (139 and 139B) with and without an alternate cambered forebody.

The model components are:

<u>Symbol</u>		<u>Definition</u>
34-0 (139) Model	12-0 (139B) Model	
B17	B19	orbiter body, basic
B20	B21	orbiter body, alternate cambered
C7	C7	canopy, basic
R5	R5	rudder
V7	V7	vertical tail
W103	W107	wing, basic
W109	W110	wing, alternate for cambered forebody
W105		wing, 500 in. glove radius
F5	F5	body flap
F6	F6	body flap, large area
E22	E23	elevon
M4	M4	OMS pods
H19	H19	trimmer, glove apex (20°)
H20	H20	trimmer, glove apex (10°)
H22	H22	trimmer, cabin (40°)
H23	H23	trimmer, nose (40°)
Z1	Z1	spoiler

CONFIGURATIONS INVESTIGATED
(Continued)

A complete description of these model components is given in Table III entitled Dimensional Data. A description of the test conditions (angles of attack and parametric considerations) to which each model configuration was subjected is contained in Table II entitled Data Set Collations.

TEST FACILITY DESCRIPTION

The Marshall Space Flight Center 14" x 14" Transonic Wind Tunnel is an intermittent blowdown tunnel which operates by high pressure air flowing from storage to either vacuum or atmospheric conditions. A Mach number range from .2 to 5.85 is covered by utilizing two interchangeable test sections. The transonic section permits testing at Mach 0.20 through 2.50, and the supersonic section permits testing at Mach 2.74 through 5.85. Mach numbers between .2 and .9 are obtained by using a controllable diffuser. The range from .95 to 1.3 is achieved through the use of plenum suction and perforated walls. Mach numbers of 1.44, 1.93 and 2.50 are produced by interchangeable sets of fixed contour nozzle blocks. Above Mach 2.50 a set of fixed contour nozzle blocks are tilted and translated automatically to produce any desired Mach number in .25 increments.

Air is supplied to a 6000 cubic foot storage tank at approximately -40°F dew point and 500 psi. The compressor is a three-stage reciprocating unit driven by a 1500 hp motor.

The tunnel flow is established and controlled with a servo actuated gate valve. The controlled air flows through the valve diffuser into the stilling chamber and heat exchanger where the air temperature can be controlled from ambient to approximately 180°F. The air then passes through the test section which contains the nozzle blocks and test region.

Downstream of the test section is a hydraulically controlled pitch sector that provides a total angle of attack range of 20° ($\pm 10^\circ$). Sting offsets are available for obtaining various maximum angles of attack up to 90°.

DATA REDUCTION

All model forces and moments were resolved in the body and stability axis systems and are presented in the form of non-dimensional coefficients. The balance centerline is 0.020 inches above the MRP (see Figure 2) and was corrected for pitching and rolling moment.

Two base pressures and one cavity pressure were recorded. The base and cavity areas are shown in Figure 3, along with the base pressure tube locations. Equations used in base pressure coefficient calculations are:

$$CA = CAF - (CPBAVG) \frac{A_b}{S_{ref}}$$

$$CAB = -(CPBAVG) \frac{A_b - A_c}{S_{ref}} - (CPC) \frac{A_c}{S_{ref}}$$

$$CPBAVG = \text{average base pressure coefficient} = \frac{P_{bavg} - P_{\infty}}{q}$$

$$CPC = \text{cavity pressure coefficient} = \frac{P_c - P_{\infty}}{q}$$

Reference dimensions utilized in the reduction of the non-dimensional coefficients are:

	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
REFERENCE AREA (S_{ref})	2690.0 ft. ²	6.198 in. ²
REFERENCE LENGTH (l_{ref}) (M.A.C)	474.8 in.	1.899 in.
REFERENCE SPAN (b_{ref}) (WING SPAN)	936.7 in.	3.747 in.
MOMENT REFERENCE CENTER (MRP) (From Nose)	838.7 in.	3.355 in.

DATA REDUCTION (Concluded)

	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
BODY LENGTH (ℓ_b)	1290.3 in.	5.161 in.
BASE AREA (A_b) (See Fig 2)	434.2 ft. ²	1.0004 in. ²
CAVITY AREA (A_c)	137.5 ft. ²	0.3167 in. ²

Data were corrected for weight tares and sting deflections.

Axial-force and drag coefficients for Mach numbers less than 1.96 for the following datasets (tunnel runs 256 thru 267) are not included in the plotted data and the tabulated listing. This data was judged to be erroneous:

R87048

R87049

R87058

R87066

R87067

R87075 (M = 1.2 only)

TEST : MSFC TWT 574	TABLE I.	DATE : MAY-JUN 73
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TEST : MSFC TWT 574	TABLE I.	DATE : MAY-JUN 73
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TEST : MSFC TWT 574	TABLE I.	DATE : MAY-JUN 73
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TEST CONDITIONS

[illegible]

BALANCE UTILIZED: MSFC No. 231 Six Component

	CAPACITY:	ACCURACY:	COEFFICIENT TOLERANCE:
NF	<u>122 lbs.</u>	<u>± .61</u>	<u>±.0082</u>
SF	<u>52 lbs.</u>	<u>± .26</u>	<u>±.0035</u>
AF	<u>22 lbs.</u>	<u>± .10</u>	<u>±.0013</u>
PM	<u>122 in-lbs.</u>	<u>± .61</u>	<u>±.0015</u>
RM	<u>30 in-lbs.</u>	<u>± .15</u>	<u>±.0004</u>
YM	<u>53 in-lbs.</u>	<u>± .27</u>	<u>±.0007</u>

COMMENTS:

TABLE II. (Continued)

Sheet 2 of 7

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TABLE II. (Continued)

sheet 3 of 7

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sheet 5 of 7

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Sheet 6 of 7

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Sheet 7 of 7

DATE:

DATA SET/PIN NUMBER COLLATION SUMMARY

SCHEDULES
α OR β

TABLE III. DIMENSIONAL DATA

MODEL COMPONENT: BODY B17

GENERAL DESCRIPTION: Fuselage, 3 configuration, lightweight orbiter per Rockwell Lines VL70-000139

Model Scale = 0.004

DRAWING NUMBER

VL70-000139

DIMENSION:

FULL SCALE

MODEL SCALE

Length ~ IN.

1290.3

5.16120

Max Width ~ IN.

267.6

1.07040

Max Depth ~ IN.

244.5

0.9780

Fineness Ratio

4.82175

4.82175

Area ~ Ft²

Max Cross-Sectional

386.67

0.00619

Planform

Wetted

Base

TABLE III. (CONTINUED)

MODEL COMPONENT: BODY B19

GENERAL DESCRIPTION: Fuselage, 3 configuration, Lightweight
Orbiter per VL70-000139B

NOTE: Identical to B17 except forebody

Model Scale = 0.004

DRAWING NUMBER

VL70-000139B

DIMENSION:

FULL SCALE

MODEL SCALE

Length ~ IN.

1290.3

5.16120

Max Width ~ IN.

267.6

1.07040

Max Depth ~ IN.

244.5

0.97

Fineness Ratio

4.82175

4.82175

Area ~ Ft²

Max Cross-Sectional

386.67

0.00619

Planform

Wetted

Base

TABLE III. (CONTINUED)

MODEL COMPONENT: BODY B20GENERAL DESCRIPTION: Fuselage, 3 configuration, Lightweight
Orbiter per Alt. Cambered Forebody for VL70-000139. Note:B20 Identical to B17 except forebody.Model Scale = .004.DRAWING NUMBER Alt. Cambered
Forebody Per
VL70-000139

<u>DIMENSION:</u>	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length ~ IN.	<u>1290.3</u>	<u>5.16120</u>
Max Width ~ IN.	<u>257.6</u>	<u>1.07040</u>
Max Depth ~ IN.	<u>244.5</u>	<u>0.9780</u>
Fineness Ratio	<u>4.82175</u>	<u>4.82175</u>
Area ~ Ft ²		
Max Cross-Sectional	<u>386.67</u>	<u>0.00619</u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>

TABLE III. (CONTINUED)

MODEL COMPONENT: BODY B21

GENERAL DESCRIPTION: Fuselage, 3 Configuration, Lightweight
Orbiter Per Alt. Cambered Forebody for VL70-000139B.

NOTE: B21 Identical to B19 Except Forebody.

Model Scale = .004

DRAWING NUMBER

Alt. Cambered
Forebody For
VL70-000139B

DIMENSION:

FULL SCALE

MODEL SCALE

Length ~ IN.

1290.3

5.16120

Max Width ~ IN.

267.6

1.07040

Max Depth ~ IN.

244.5

0.9780

Fineness Ratio

4.82175

4.82175

Area ~ Ft.²

Max Cross-Sectional

386.67

0.00619

Planform

Wetted

Base

TABLE III. (CONTINUED)

MODEL COMPONENT: Canopy - C7

GENERAL DESCRIPTION: Configuration 3 per Rockwell Lines

VL 70-000139

Model Scale = .004

DRAWING NUMBER VL70-000139

<u>DIMENSION:</u>	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length ($x_o = 433$ to $x_o = 670$) in.FS	<u>237</u>	<u>0.9480</u>
Max Width	<u> </u>	<u> </u>
Max Depth ($y_o =$ to $y_o = 501$) in.FS	<u> </u>	<u> </u>
Fineness Ratio	<u> </u>	<u> </u>
Area		
Max Cross-Sectional	<u> </u>	<u> </u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>

TABLE III. (CONTINUED)

MODEL COMPONENT: R5 - RudderGENERAL DESCRIPTION: 2A and 3 configuration per Rockwell linesVL70-000095 and VL70-000139Scale Model = .004DRAWING NUMBER: VL70-000139
VL70-000095

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area ~ Ft ²	<u>106.38</u>	<u>0.00170</u>
Span (equivalent) ~ IN.	<u>201.0</u>	<u>0.8040</u>
Inb'd equivalent chord	<u>91.585</u>	<u>0.36634</u>
Outb'd equivalent chord	<u>50.833</u>	<u>0.20333</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>34.83</u>	<u>34.83</u>
Tailing Edge	<u>26.25</u>	<u>26.25</u>
Hingeline	<u>34.83</u>	<u>34.83</u>
Area Moment (Normal to hinge line) Ft ³	<u>526.13</u>	<u>0.00003</u>
Product of area and mean chord		

TABLE III. (CONTINUED)

MODEL COMPONENT: VERTICAL - V 7 (Lightweight orbiter configuration)GENERAL DESCRIPTION: Centerline vertical tail, double wedge airfoil
with rounded leading edge

Scale Model = .004

DRAWING NUMBER:

VL70-0000139
VL70-000095DIMENSIONS:FULL-SCALEMODEL SCALETOTAL DATA

Area (Theo) ~ Ft ²	425.92	0.00682
Planform		
Span (Theo) ~ In.	315.72	1.26288
Aspect Ratio	1.675	1.675
Rate of Taper	0.507	0.507
Taper Ratio	.404	.404
Sweep Back Angles, degrees		
Leading Edge	45.000	45.000
Trailing Edge	26.249	26.249
0.25 Element Line	41.130	41.130
Chords:		
Root (Theo) WP	268.50	1.0740
Tip (Theo) WP	103.47	0.43388
MAC	199.81	0.79924
Fus. Sta. of .25 MAC	1463.50	5.8540
W. P. of .25 MAC	635.522	2.542088
B. L. of .25 MAC	0.00	0.00
Airfoil Section		
Leading Wedge Angle Deg	10.000	10.000
Trailing Wedge Angle Deg	14.920	14.920
Leading Edge Radius ~ IN.	2.00	0.0080
Void Area	13.17	0.00021
Blanketed Area		

TABLE III. (CONTINUED)

MODEL COMPONENT: WING-W103 New Lightweight OrbiterGENERAL DESCRIPTION: Orbiter 3 configuration per lines VL70-000139NOTE: (Dihedral angle is defined at the lower surface of the wing at the 75.33% element line projected into a plane perpendicularto the FRL.Scale Model = 0.004TEST NO.DWG. NO. VL70 000139DIMENSIONS:FULL-SCALEMODEL SCALETOTAL DATAArea (Theo.) Ft^2

Planform

Span (Theo) In.

Aspect Ratio

Rate of Taper

Taper Ratio

Dihedral Angle, degrees

Incidence Angle, degrees

Aerodynamic Twist, degrees

Sweep Back Angles, degrees

Leading Edge

Trailing Edge

0.25 Element Line

Chords:

Root (Theo) B.P.O.O.

Tip, (Theo) B.P.

MAC

Fus. Sta. of .25 MAC

W.P. of .25 MAC

B.L. of .25 MAC

EXPOSED DATAArea (Theo) Ft^2

Span, (Theo) In. BP108

Aspect Ratio

Taper Ratio

Chords

Root BP108

Tip 1.00 $\frac{b}{2}$

MAC

Fus. Sta. of .25 MAC

W.P. of .25 MAC

B.L. of .25 MAC

Airfoil Section (Rockwell Mod NASA)

XXXX-64

Root $\frac{b}{2}$ =Tip $\frac{b}{2}$ =

Data for (1) of (2) Sides

Leading Edge Cuff

Planform Area Ft^2

Leading Edge Intersects Fus M. L. @ Sta

Leading Edge Intersects Wing @ Sta

TABLE III. (CONTINUED)

MODEL COMPONENT: WING-W 107 New Lightweight OrbiterGENERAL DESCRIPTION: Orbiter 3 configuration per lines VL70-000139B.NOTE: Same as W103 except cuff, airfoil, and angle of incidence

Scale Model = 0.004

TEST NO.	DWG. NO. VL70-000139	
DIMENSIONS:	FULL-SCALE	MODEL SCALE
<u>TOTAL DATA</u>		
Area (theo.) Ft^2	2690.00	0.04304
Planform	936.68	3.74672
Span (Theo) In.	2.265	2.265
Aspect Ratio	1.177	1.177
Rate of Taper	0.200	0.200
Taper Ratio	3.500	3.500
Dihedral Angle, degrees	0.500	0.500
Incidence Angle, degrees	+3.000	+3.000
Aerodynamic Twist, degrees		
Sweep Back Angles, degrees	45.000	45.000
Leading Edge	-10.24	-10.24
Trailing Edge	35.209	35.209
0.25 Element Line		
Chords:		
Root (Theo) B.P.O.O.	689.24	2.75596
Tip, (Theo) B.P.	137.85	0.55140
MAC	474.81	1.89924
Fus. Sta. of .25 MAC	1136.89	4.54756
W.P. of .25 MAC	299.20	1.19680
B.L. of .25 MAC	182.13	0.72852
<u>EXPOSED DATA</u>		
Area (theo) Ft^2	1752.29	0.02804
Span, (Theo) In. BP108	720.68	2.88272
Aspect Ratio	2.058	2.058
Taper Ratio	0.2451	0.2451
Chords		
Root BP108	562.40	2.2496
Tip 1.00 $\frac{b}{2}$	137.85	0.55140
MAC	393.03	1.57212
Fus. Sta. of .25 MAC	1185.31	4.74124
W.P. of .25 MAC	300.20	1.20080
B.L. of .25 MAC	251.76	1.00704
Airfoil Section (Rockwell Mod NASA)		
XXXX-64		
Root $\frac{b}{2}$.10	.10
Tip $\frac{b}{2}$.12	.12
<u>Data for (1) of (2) Sides</u>		
Leading Edge Cuff	118.333	0.00189
Planform Area Ft^2	500	2.0
Leading Edge Intersects Fus M. L. @ Sta	1083.4	4.3336
Leading Edge Intersects Wing @ Sta		

TABLE III. (CONTINUED)

MODEL COMPONENT: WING-K 109 New Lightweight OrbiterGENERAL DESCRIPTION: Orbiter, configuration per lines A1th. CamberedForebody for VL70-000139 NOTE: Dihedral Angle is definedat the lower surface of the wing at the 75.33% element lineprojected into a plane perpendicular to the FRIScale Model = .054A1th. Cambered Forebod:TEST NO.DWG. NO. For VL70-000139DIMENSIONS:FULL-SCALEMODEL SCALETOTAL DATA

Area (lineo.) Ft^2
 Planform
 Span (Theo In.
 Aspect Ratio
 Rate of Taper
 Taper Ratio
 Dihedral Angle, degrees
 Incidence Angle, degrees
 Aerodynamic Twist, degrees
 Sweep Back Angles, degrees
 Leading Edge
 Trailing Edge
 C.25 Element Line
 Chords:
 Root (Theo) B.P.O.O.
 Tip, (Theo) B.P.
 MAC
 Fus. Sta. of .25 MAC
 W.P. of .25 MAC
 B.L. of .25 MAC

2690.00	0.04304
936.68	3.74672
2.265	2.265
1.177	1.177
0.200	0.200
3.500	3.500
3.000	3.000
+3.000	+3.000
45.000	45.000
-10.24	-10.24
35.209	35.209
689.24	2.75696
137.85	0.55140
474.81	1.89924
1136.89	4.54756
299.20	1.19680
182.13	0.72852

EXPOSED DATA

Area (lineo.) Ft^2
 Span, (Theo) In. BP108
 Aspect Ratio
 Taper Ratio
 Chords
 Root BP108
 Tip $1.00 \frac{b}{2}$
 MAC
 Fus. Sta. of .25 MAC
 W.P. of .25 MAC
 B.L. of .25 MAC

1752.29	0.02804
720.68	2.88272
2.058	2.058
0.2451	0.2451
562.40	2.2496
137.85	0.55140
393.03	1.57212
1185.31	4.74124
300.20	1.20080
251.76	1.00704

Airfoil Section (Rockwell Mod NASA)
 XXXX-64

Root $\frac{b}{2} =$

.10	.10
-----	-----

Tip $\frac{b}{2} =$

.12	.12
-----	-----

Data for (1) of (2) Sides

Leading Edge Cuff
 Planform Area Ft^2
 Leading Edge Intersects Fus M. L. @ Sta
 Leading Edge Intersects Wing @ Sta

120.33	0.00192
560.0	2.240
1035.0	4.140

TABLE III. (CONTINUED)

MODEL COMPONENT: WING-X 110 New Lightweight OrbiterGENERAL DESCRIPTION: Orbiter 3 configuration per lines for VL70-000139BAltn. Cambered ForebodyNOTE: Same as W103 except Cuff, Airfoil, and Angle of Incidence

Scale Model = 0.004

Altn. Cambered Foreb
DWG. NO. For VL70-000139BTEST NO.DIMENSIONS:FULL-SCALEMODEL SCALETOTAL DATAArea (Theo.) Ft^2

2690.00

0.04304

Planform

936.68

3.74672

Span (Theo) In.

2.265

2.265

Aspect Ratio

1.177

1.177

Rate of Taper

0.200

0.200

Taper Ratio

3.500

3.500

Dihedral Angle, degrees

0.500

0.500

Incidence Angle, degrees

+3.000

+3.000

Aerodynamic Twist, degrees

Sweep Back Angles, degrees

45.000

45.000

Leading Edge

-10.24

-10.24

Trailing Edge

35.209

35.209

0.25 Element Line

Chords:

Root (Theo) B.P.O.O.

689.24

2.75696

Tip, (Theo) B.P.

137.85

0.55140

MAC

474.81

1.89924

Fus. Sta. of .25 MAC

1136.89

4.54756

W.P. of .25 MAC

299.20

1.19680

B.L. of .25 MAC

182.13

0.72852

EXPOSED DATAArea (Theo) Ft^2

1752.29

0.02804

Span, (Theo) In. BP108

720.68

2.88272

Aspect Ratio

2.058

2.058

Taper Ratio

0.2451

0.2451

Chords

Root BP108

562.40

2.2496

Tip $1.0 \frac{b}{2}$

137.85

0.55140

MAC

393.03

1.57212

Fus. Sta. of .25 MAC

1185.31

4.74124

W.P. of .25 MAC

300.20

1.20080

B.L. of .25 MAC

251.76

1.00704

Airfoil Section (Rockwell Mod NASA)
XXXX-64Root $\frac{b}{2}$ =

.10

.10

Tip $\frac{b}{2}$ =

.12

.12

Data for (1) of (2) Sides

Leading Edge Cuff Ft^2

118.333

0.00189

Planform Area

500

2.0

Leading Edge Intersects Fus M. L. @ Sta

1083.4

4.3336

Leading Edge Intersects Wing @ Sta

TABLE III. (CONTINUED)

MODEL COMPONENT: WING-W 105 New Lightweight OrbiterGENERAL DESCRIPTION: Orbiter 3 Configuration per lines VL70-000139NOTE: W105 identical to W103 except 500 in. radius used to
connect cuff to wing.

Scale model = 0.004

TEST NO. DWG. NO. VL70-000139 MODDIMENSIONS: FULL-SCALE MODEL SCALETOTAL DATAArea (Theo.) Ft^2

2690.00 0.04304

Planform

936.68 3.74672

Span (Theo) In.

2.265 2.265

Aspect Ratio

1.177 1.177

Rate of Taper

0.200 0.200

Taper Ratio

3.500 3.500

Dihedral Angle, degrees

3.000 3.000

Incidence Angle, degrees

+3.000 +3.000

Aerodynamic Twist, degrees

Sweep Back Angles, degrees

45.000 45.000

Leading Edge

-10.24 -10.24

Trailing Edge

35.209 35.209

0.25 Element Line

Chords:

Root (Theo) B.P.O.O.

689.24 2.75696

Tip, (Theo) B.P.

137.85 0.55140

MAC

474.81 1.89924

Fus. Sta. of .25 MAC

1136.89 4.54756

W.P. of .25 MAC

299.20 1.19680

B.L. of .25 MAC

182.13 0.72852

EXPOSED DATAArea (Theo) Ft^2

1752.29 7.00916

Span, (Theo) In. BP108

720.68 2.88272

Aspect Ratio

2.058 2.058

Taper Ratio

0.2451 0.2451

Chords

Root BP108

562.40 2.24960

Tip 1.00 $\frac{b}{2}$

137.85 0.55140

MAC

393.03 1.57212

Fus. Sta. of .25 MAC

1185.31 4.74124

W.P. of .25 MAC

300.20 1.20008

B.L. of .25 MAC

251.76 1.00704

Airfoil Section (Rockwell Mod NASA)
XXXX-64Root $\frac{b}{2}$ =

.10 .10

Tip $\frac{b}{2}$ =

.12 .12

Data for (1) of (2) Sides

Leading Edge Cuff 2

122.67 0.00196

Planform Area Ft^2

569.50 2.2780

Leading Edge Intersects Fus M. L. @ Sta

1135.4 4.54160

Leading Edge Intersects Wing @ Sta

TABLE III. (CONTINUED)

MODEL COMPONENT: F5 Body FlapGENERAL DESCRIPTION: 3 configuration per Rockwell linesVL70-000139Scale Model = 0.004

DRAWING NUMBER

VL70-000139DIMENSION:FULL SCALEMODEL SCALE

Length ~ IN.

84.700.33880

Max Width ~ IN.

267.61.07040

Max Depth

Fineness Ratio

Area ~ Ft²

Max Cross-Sectional

Planform

Wetted

Base

142.51950.0022838.09580.15238

TABLE III. (CONTINUED)

MODEL COMPONENT: Body Flap - F₆

GENERAL DESCRIPTION: Body Flap for configuration 3,
per lines VL70-000139B

NOTE: Flap adjustable from -32.5° to +13.75"

MODEL SCALE = .004

DRAWING NUMBER _____

<u>DIMENSION:</u>	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length ~ in.	<u>107.0</u>	<u>0.4280</u>
Max Width ~ in.	<u>267.6</u>	<u>1.0704</u>
Max Depth	_____	_____
Fineness Ratio	_____	_____
Area ~ Ft ²	_____	_____
Max Cross-Sectional	_____	_____
Planform	<u>174.55</u>	<u>0.00279</u>
Wetted	_____	_____
Base	<u>38.0958</u>	<u>0.00067</u>

TABLE III. (CONTINUED)

MODEL COMPONENT: Elevon E-22GENERAL DESCRIPTION: 3 configuration per W103 Rockwell linesVL70-000139 data for (1) of (2) sidesScale Model = 0.004DRAWING NUMBER: VL70-000139

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area ~ FT^2	<u>205.52</u>	<u>0.00329</u>
Span (equivalent) IN.	<u>353.34</u>	<u>1.41336</u>
Inb'd equivalent chord	<u>114.78</u>	<u>0.45912</u>
Outb'd equivalent chord	<u>55.00</u>	<u>0.220</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>.208</u>	<u>.208</u>
At Outb'd equiv. chord	<u>.400</u>	<u>.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.00</u>	<u>0.00</u>
Tailing Edge	<u>-10.24</u>	<u>-10.24</u>
Hingeline	<u>0.00</u>	<u>0.00</u>
Area Moment (Normal to hinge line) FT^3	<u>1548.07</u>	<u>0.00010</u>

TABLE III. (CONTINUED)

MODEL COMPONENT: Elevon E-23GENERAL DESCRIPTION: 3 configuration per W107 Rockwell linesVL70-000139B data for (1) of (2) sidesScale Model = 0.004DRAWING NUMBER: VL70-000139B

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area ~ FT^2	<u>205.52</u>	<u>0.003288</u>
Span (equivalent) ~ IN.	<u>353.34</u>	<u>1.41336</u>
Inb'd equivalent chord	<u>114.78</u>	<u>0.45912</u>
Outb'd equivalent chord	<u>55.00</u>	<u>0.220</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>.208</u>	<u>.208</u>
At Outb'd equiv. chord	<u>.400</u>	<u>.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.00</u>	<u>0.00</u>
Tailing Edge	<u>-10.24</u>	<u>-10.24</u>
Hingeline	<u>0.00</u>	<u>0.00</u>
Area Moment (Normal to hinge line) ~ FT^3	<u>1548.07</u>	<u>0.00010</u>
Product of Area Moment		

TABLE III. (CONTINUED)

MODEL COMPONENT: OMS Pod - M4

GENERAL DESCRIPTION: 3 Lightweight configuration per Rockwell
Lines VL70-000139

Scale Model = 0.004

DRAWING NUMBER VL70-000139

<u>DIMENSION:</u>	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length ~ IN.	<u>346.0</u>	<u>1.3840</u>
Max Width ~ IN.	<u>108.0</u>	<u>0.4320</u>
Max Depth ~ IN.	<u>113.0</u>	<u>113.0</u>
Fineness Ratio	<u> </u>	<u> </u>
Area		
Max Cross-Sectional	<u> </u>	<u> </u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>

D of OMS Pod

WP = 463.9 INFS: $WP400 + 63.9 = 463.9$

BP = 80.0 INFS

Length 1214.0 to 1560.0 = 346.0 INFS

NOTE: M4 identical to M3 of 2A configuration except
intersection to body

TABLE III. (CONTINUED)

MODEL COMPONENT: Trimmer - H₁₉GENERAL DESCRIPTION: Trimmer for Configuration 3, per
lines VL70-000139BNOTE: Data for one (1) Side OnlyMODEL SCALE = .004

DRAWING NUMBER _____

<u>DIMENSION:</u>	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length ~ in.	<u>222.5</u>	<u>0.890</u>
Max Width ~ in.	<u>66.25</u>	<u>0.265</u>
Max Depth	<u> </u>	<u> </u>
Fineness Ratio	<u> </u>	<u> </u>
Area ~ Ft ²		
Max Cross-Sectional	<u> </u>	<u> </u>
Planform	<u>55.21</u>	<u>0.000884</u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>
Included Angle ~ Deg	<u>17.64</u>	<u>17.64</u>
Leading Edge intersects Fuse @ sta.	<u>548.0</u>	<u>2.192</u>
Trailing Edge intersects Fuse @ sta.	<u>748.8</u>	<u>2.995</u>

TABLE III. (CONTINUED)

MODEL COMPONENT: Trimmer H₂₀GENERAL DESCRIPTION: Trimmer for configuration 3, per linesVL70-000139BModel Scale = .004

DRAWING NUMBER _____

<u>DIMENSION:</u>	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length ~ In.	<u>204.5</u>	<u>0.818</u>
Max Width ~ In.	<u>42.125</u>	<u>0.1685</u>
Max Depth	_____	_____
Fineness Ratio	_____	_____
Area ~ Ft ²	_____	_____
Max Cross-Sectional	_____	_____
Planform	<u>23.74</u>	<u>0.00038</u>
Wetted	_____	_____
Base	_____	_____
Included Angle ~ deg	<u>8.95</u>	<u>8.95</u>
Leading Edge intersects Fuse @ sta.	<u>560.75</u>	<u>2.243</u>
Trailing Edge intersects Fuse @ sta.	<u>765.25</u>	<u>3.061</u>

TABLE III. (CONTINUED)

MODEL COMPONENT: Trimmer - H₂₂GENERAL DESCRIPTION: Trimmer for configuration 3, for lines
VL70-000139BNOTE: Data for one (1) side onlyMODEL SCALE - .004

DRAWING NUMBER _____

<u>DIMENSION:</u>	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length ~ in.	<u>137.12</u>	<u>0.5485</u>
Max Width ~ in.	<u>61.75</u>	<u>0.247</u>
Max Depth	_____	_____
Fineness Ratio	_____	_____
Area ~ Ft.	_____	_____
Max Cross-Sectional	_____	_____
Planform	<u>32.745</u>	<u>0.000524</u>
Wetted	_____	_____
Base	_____	_____
Included Angle ~ deg	<u>28.2</u>	<u>28.2</u>
Leading Edge intersects Fuse @ sta.	<u>433.62</u>	<u>1.7345</u>
Trailing Edge intersects Fuse @ sta.	<u>570.75</u>	<u>2.283</u>

TABLE III. (CONTINUED)

MODEL COMPONENT: Trimmer - H₂₃GENERAL DESCRIPTION: Trimmer for configuration 3, per lines
VL70-000139B, Nose mountedMODEL SCALE = ,004

DRAWING NUMBER _____

<u>DIMENSION:</u>	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length ~ in. ($@ B_0 = 331$)	<u>96.5</u>	<u>0.386</u>
Max Width ~ in.	<u>46.12</u>	<u>0.1845</u>
Max Depth	_____	_____
Fineness Ratio	_____	_____
Area ~ Ft ²		
Max Cross-Sectional	_____	_____
Planform	<u>21.285</u>	<u>0.000341</u>
Wetted	_____	_____
Base	_____	_____
Included Angle ~ deg	<u>36.12</u>	<u>36.12</u>
Leading Edge intersects Fus @ sta.	<u>280.38</u>	<u>1.1215</u>
Trailing Edge intersects Fus @ sta.	<u>376.87</u>	<u>1.507</u>

TABLE III. (CONCLUDED)

MODEL COMPONENT: Spoiler - Σ_1 GENERAL DESCRIPTION: Spoiler for configuration 3, lines
drawing VL70-000139.NOTE: Data for (1) side onlyMODEL SCALE = .004





DRAWING NUMBER _____

<u>DIMENSION:</u>	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length ~ in.	<u>250.0</u>	<u>1.0</u>
Max Width ~ in.	<u>25</u>	<u>0.10</u>
Max Depth ~ in.	<u>25</u>	<u>0.10</u>
Fineness Ratio	_____	_____
Area ~ ft^2		
Max Cross-Sectional	<u>4.34028</u>	<u>0.00007</u>
Planform	_____	_____
Wetted	_____	_____
Base	_____	_____

NOTE: Located on W_{103} , 50 in. FS from and parallel to the leading edge. In board end of spoiler is 109.375 in. FS from outer moldline ($Y_0 = 217.375$)

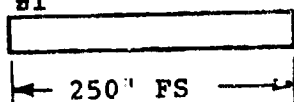
TABLE IV.
AUXILIARY SURFACE CONFIGURATIONS

TRIMMERS

NO.	PLANFORM (Included Radius, FS)	Sexposed FT ² , FS (one side)	INCI- DENCE ANGLE	MOUNTING LOCATION (Body Station*)
H19	17.63° 227.3" 	55.2	Same as Glove L.E.	Glove Apex X _O = 548.0
H20	8.95° 209.2" 	23.74	Same as Glove L.E.	Glove Apex X _O = 560.75
H22	28.2° 138.8" 	32.75	0°	Forward Body X _O = 433.6 Z _O = 408.25
H23	36.12° 98.6" 	21.28	0°	Nose X _O = 280.4 Z _O = 331.0

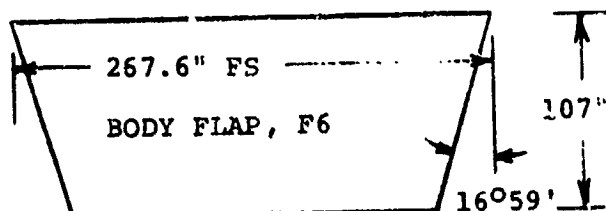
*L.E. Intersection with Fuselage

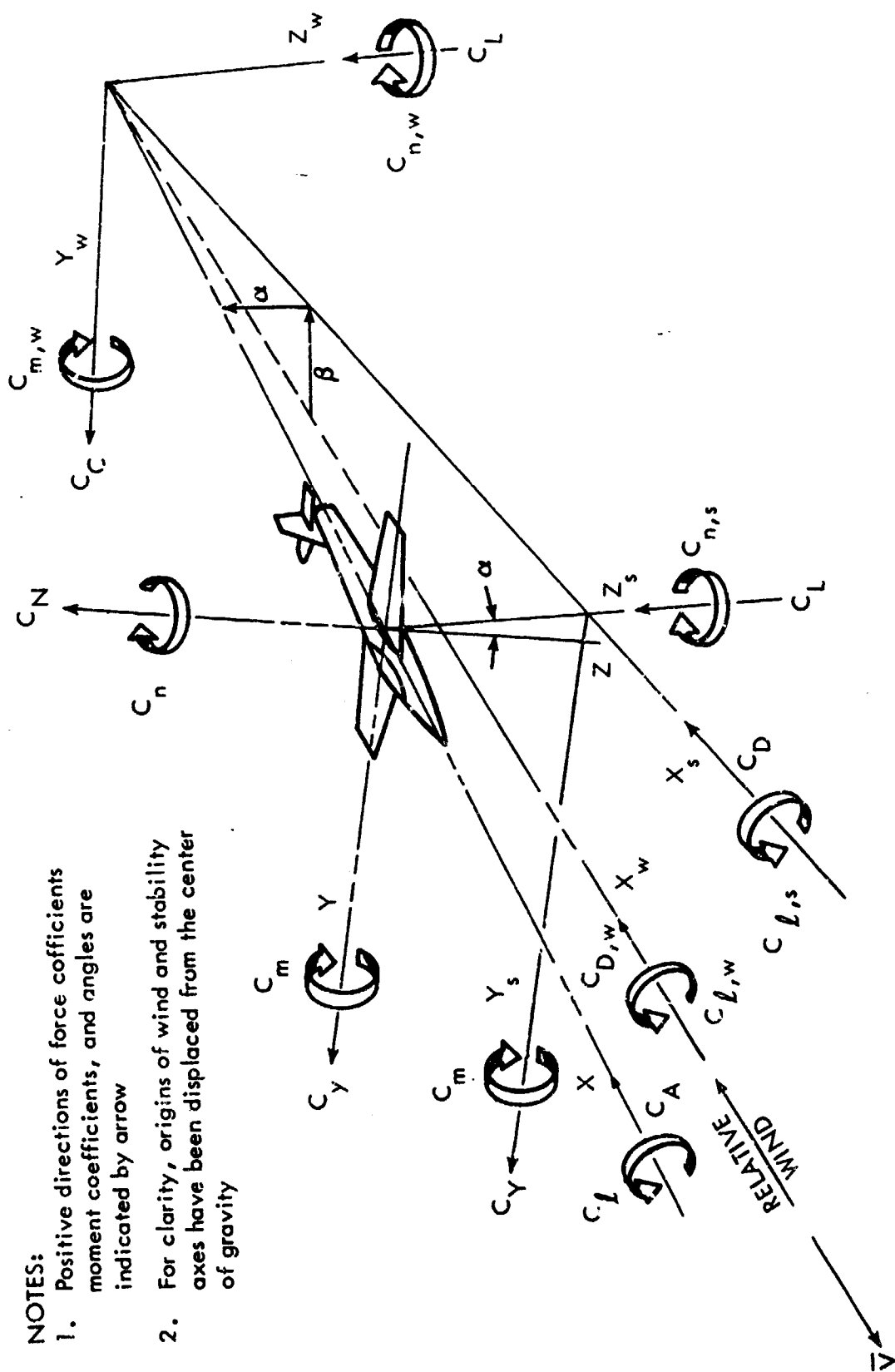
Spoiler, S1



25" 25"

Spoiler located parallel
to and 50" behind L.E. of
wing W103 with inboard
end at Y_O = 217.375





- NOTES:
1. Positive directions of force coefficients, moment coefficients, and angles are indicated by arrow
 2. For clarity, origins of wind and stability axes have been displaced from the center of gravity

Figure 1. - Axis Systems.

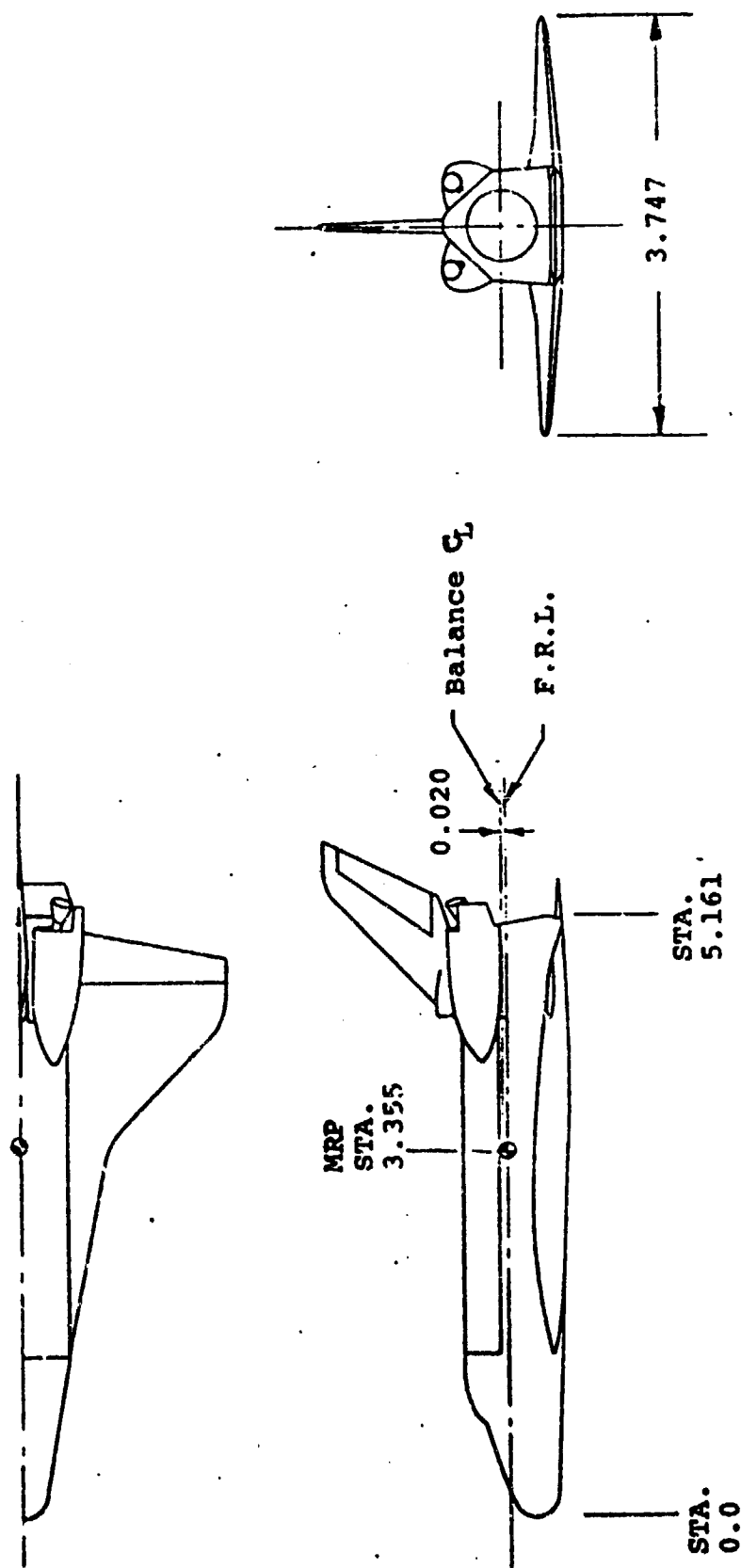


Figure 2. - General Arrangement of Orbiter Model.

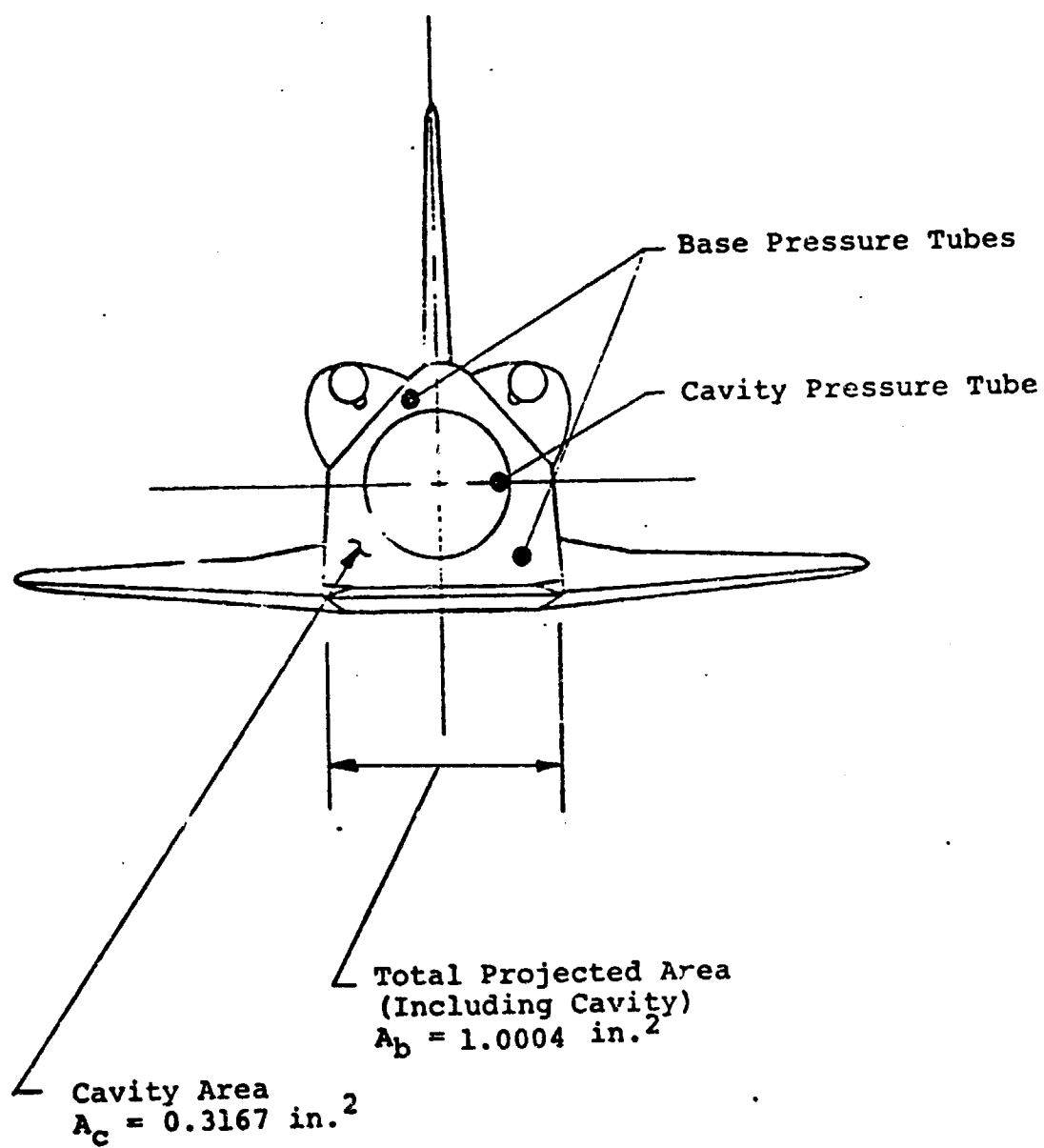


Figure 3. - Definition of Base and Cavity Areas and Pressure Tube Locations.

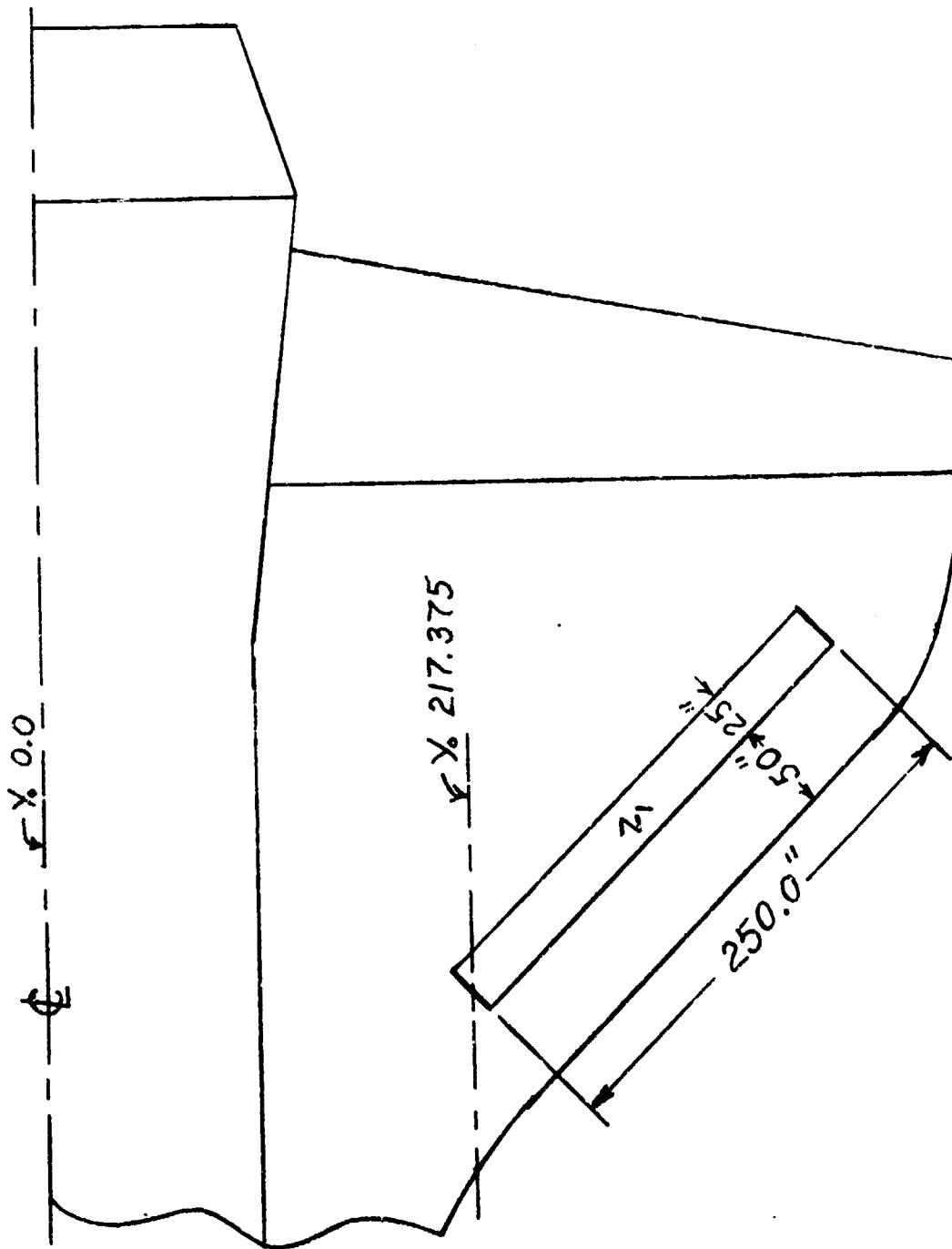
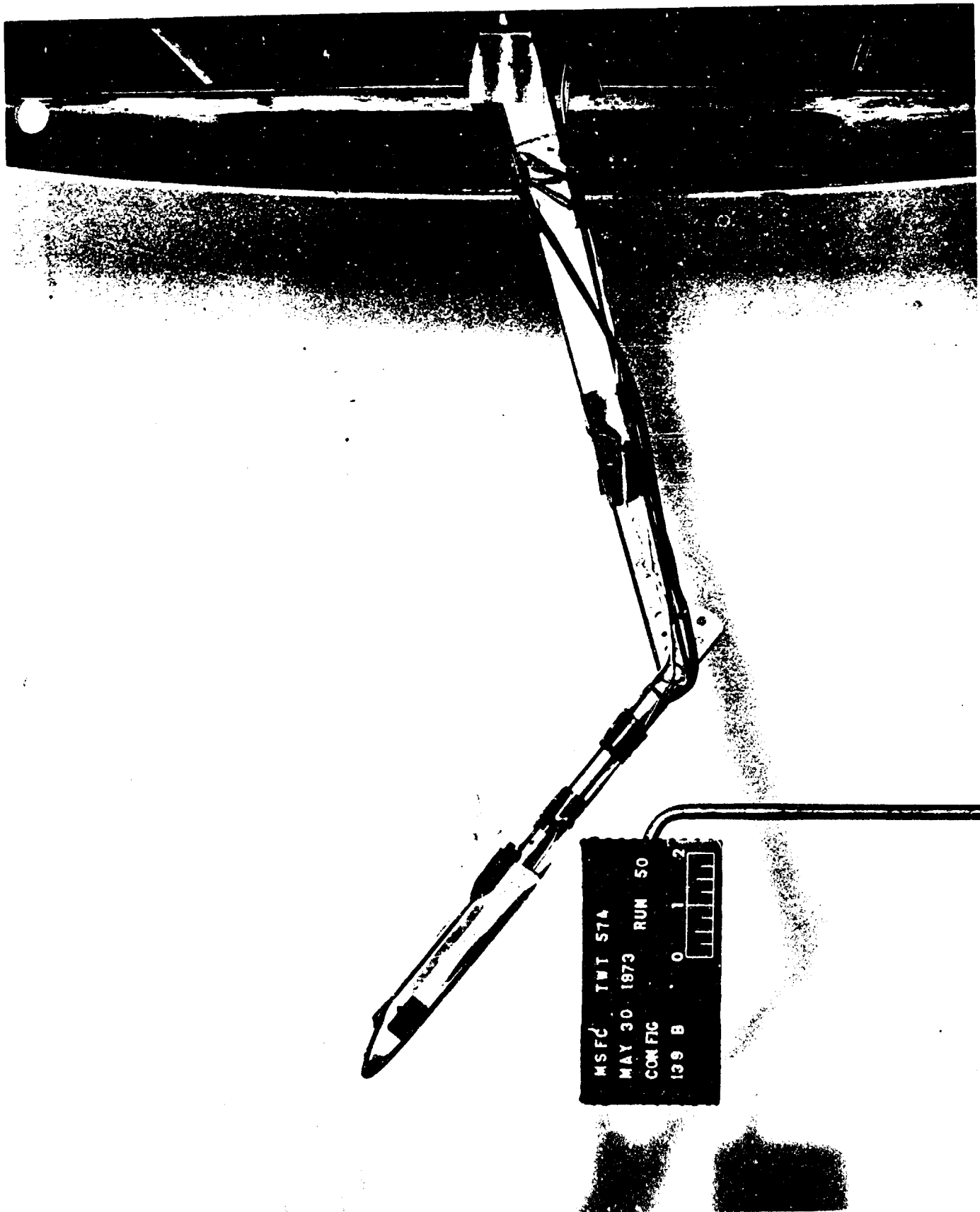
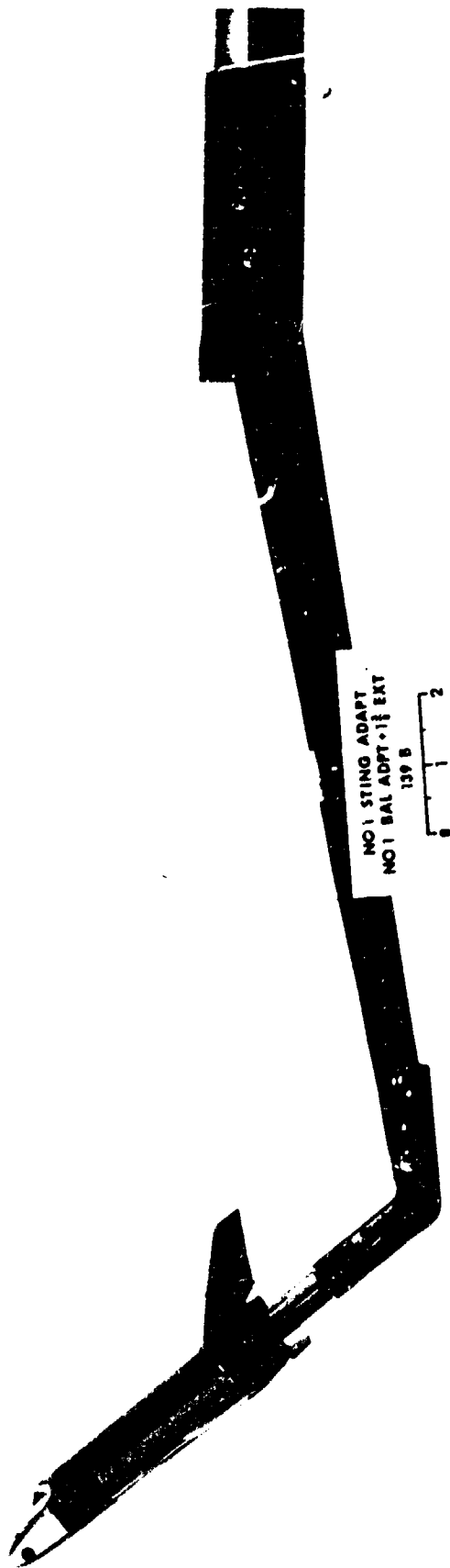


Figure 4. - Location of Spoiler Z1 on Upper Surface of Orbiter Wing W103.

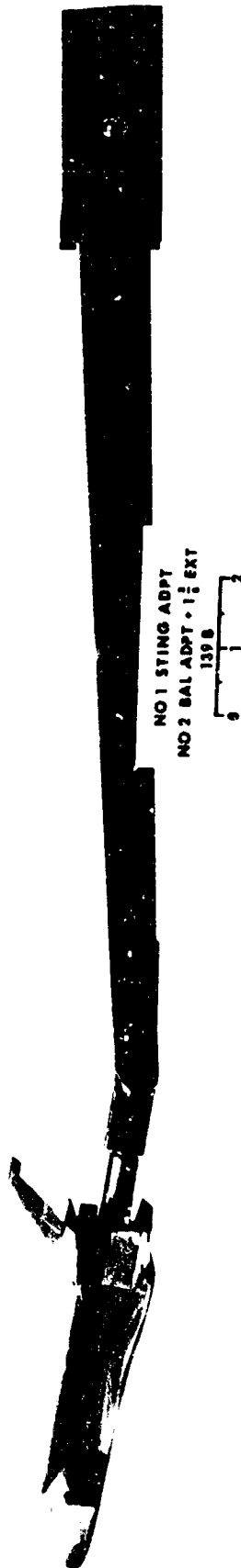


(a) Tunnel Installation Photograph
Figure 5. - Configuration 139B.



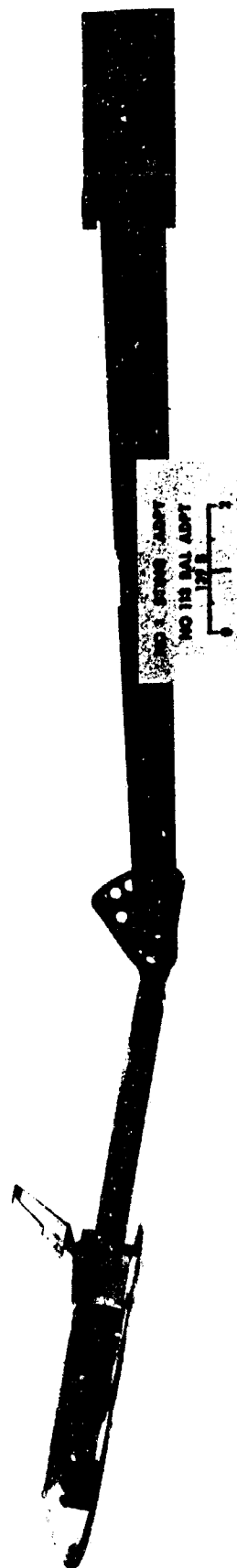
(b) No. 1 Sting Adapter, No. 1 Balance Adapter

Figure 5. - Continued.

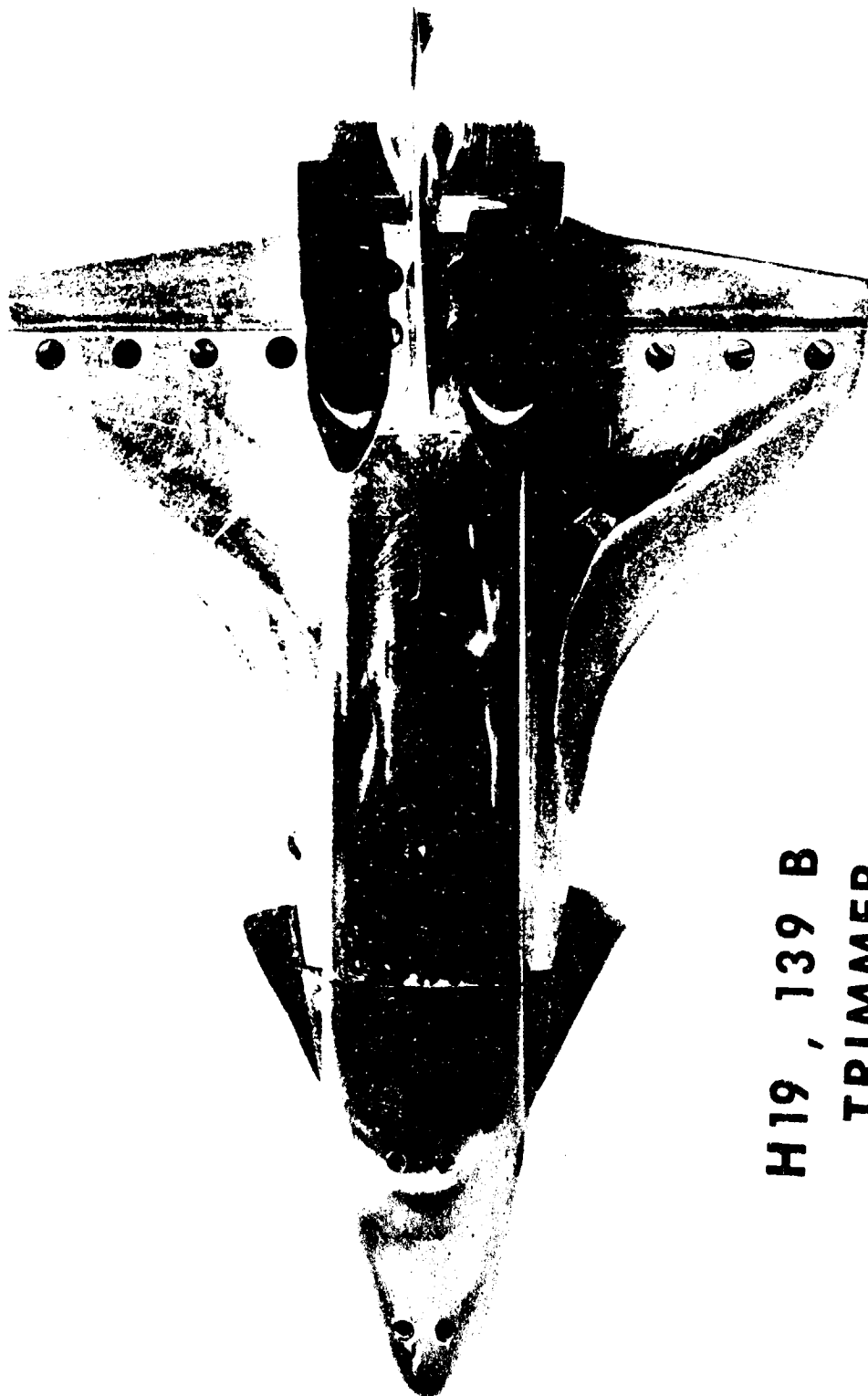


(c) No. 1. Sting Adapter, No. 2 Balance Adapter

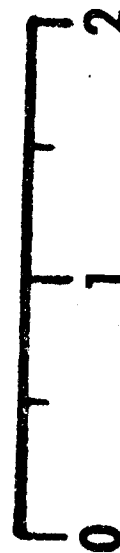
Figure 5. - Continued.



(d) No. 1 Sting Adapter, No. 113 Balance Adapter
Figure 5. - Concluded.

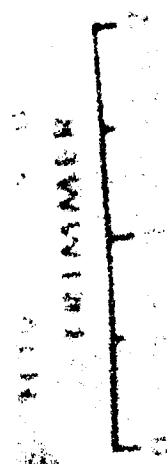


H19 , 139 B
TRIMMER



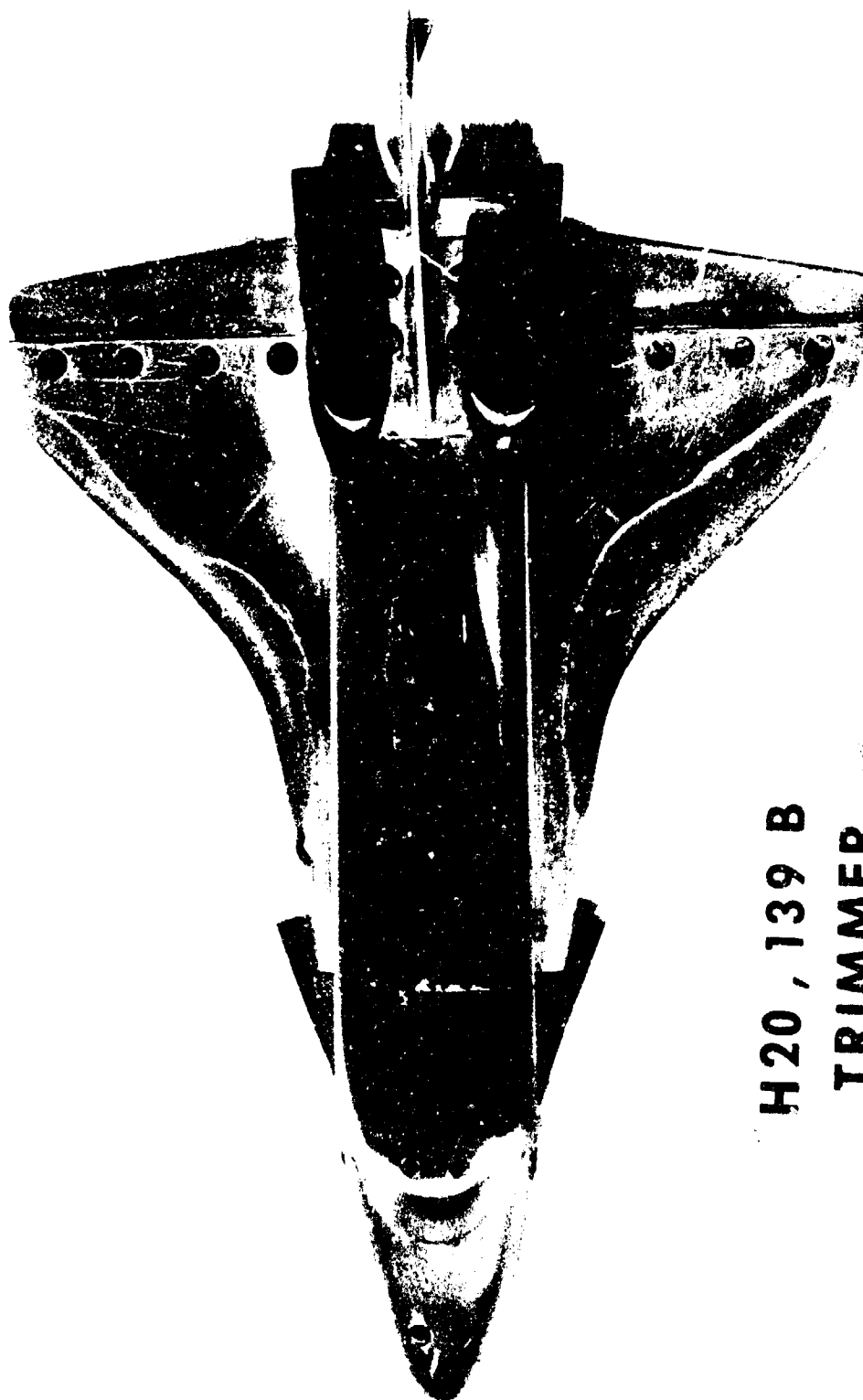
(a) Top View

Figure 6. - Configuration 139B - H19 Trimmer.

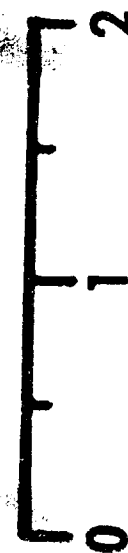


(b) Top Oblique View

Figure 6. - Concluded.



H20 , 139 B
TRIMMER



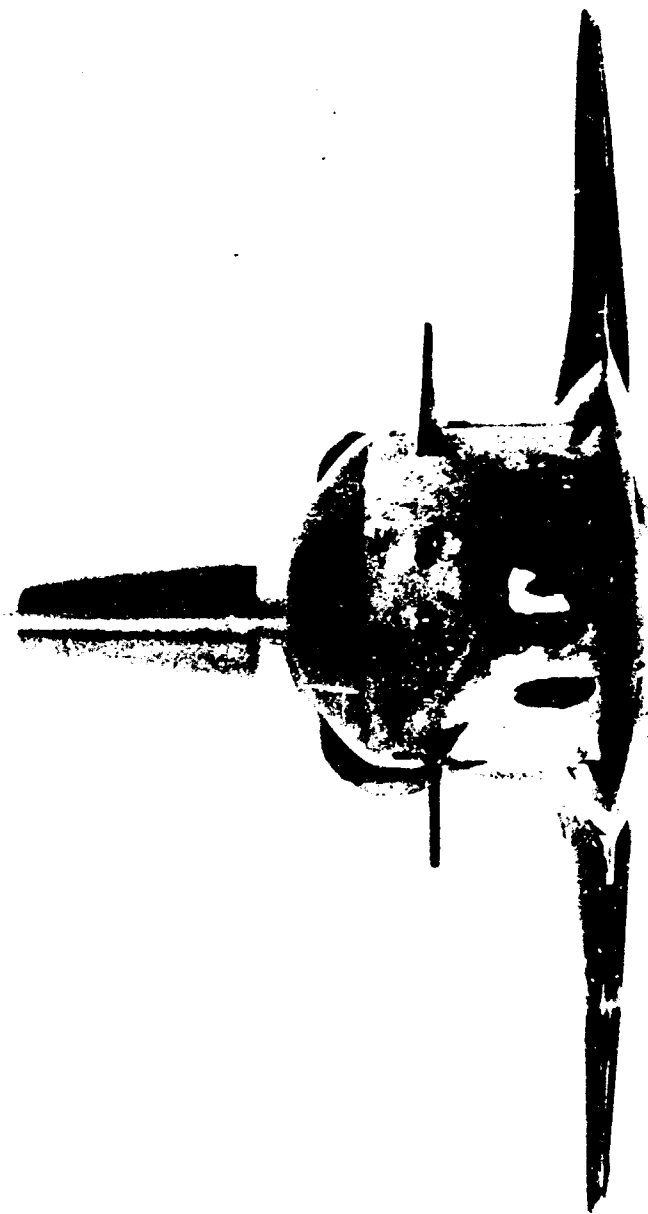
(a) Top View

Figure 7. Configuration 139B - H2O Trimmer.



(b) Top Oblique View

Figure 7. - Concluded.

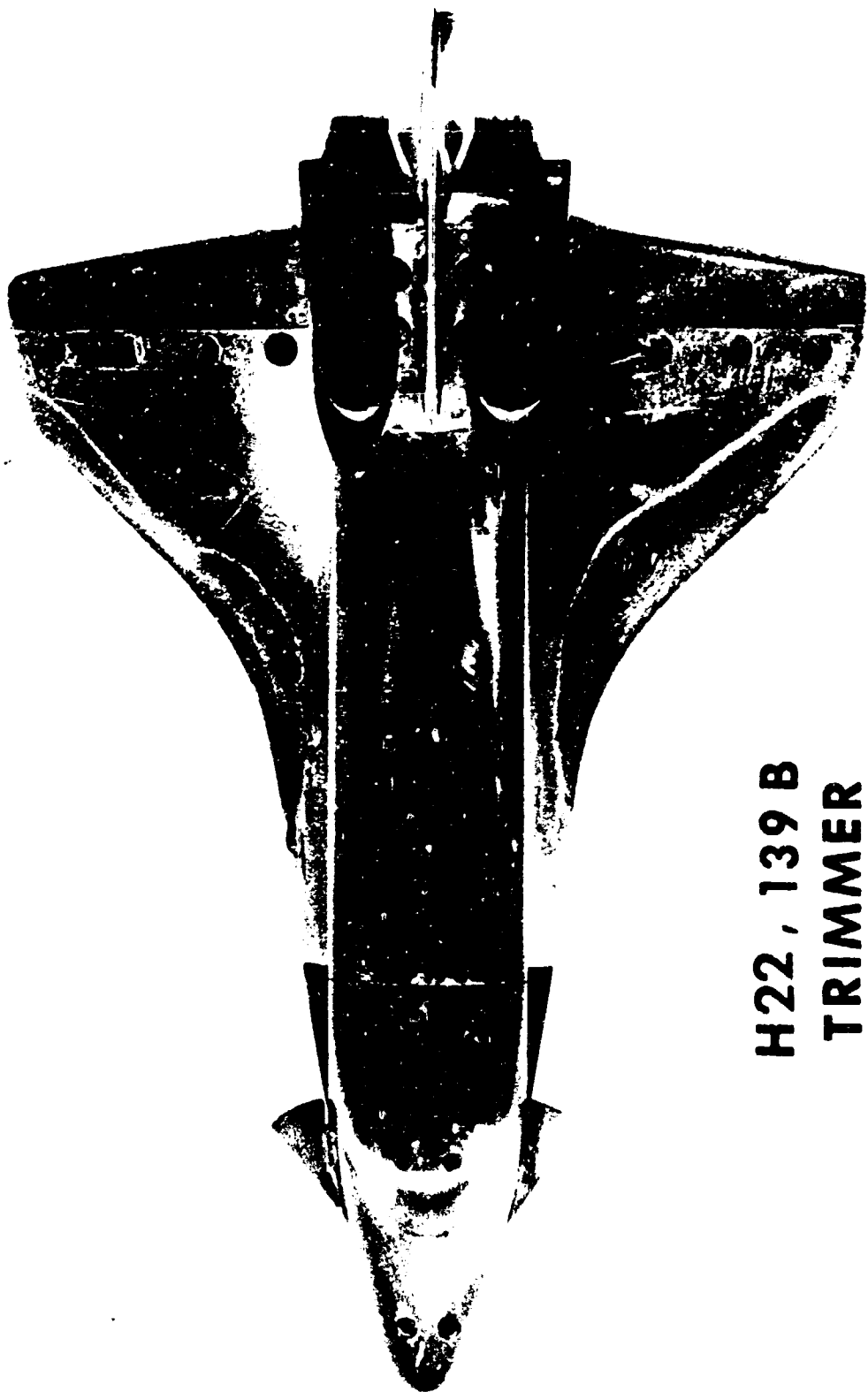


H22, 139 B TRIMMER



(a) Front View

Figure 8. - Configuration 139B - H22 Trimmer

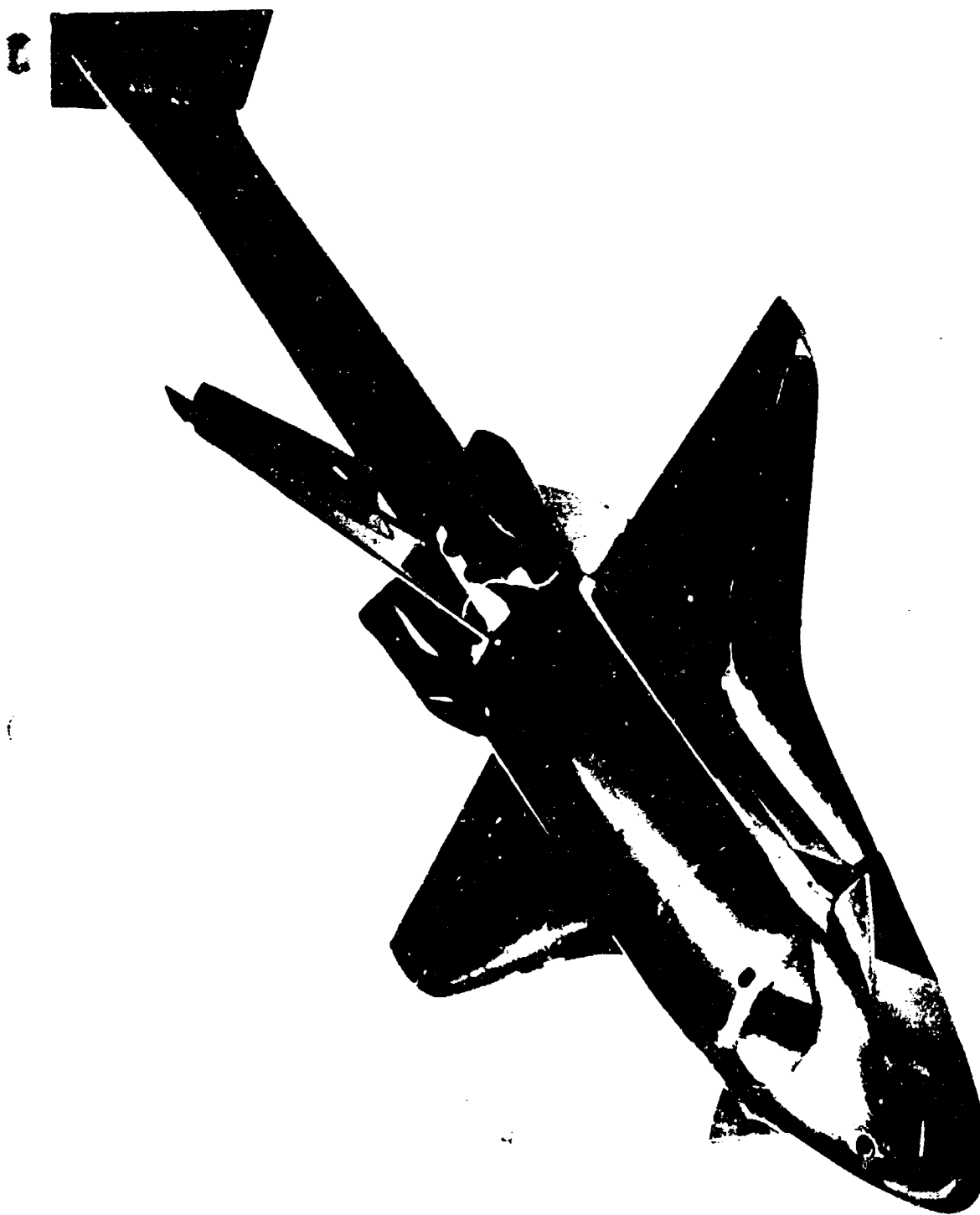


H22, 139 B
TRIMMER



(b) Top View

Figure 8. - Continued.

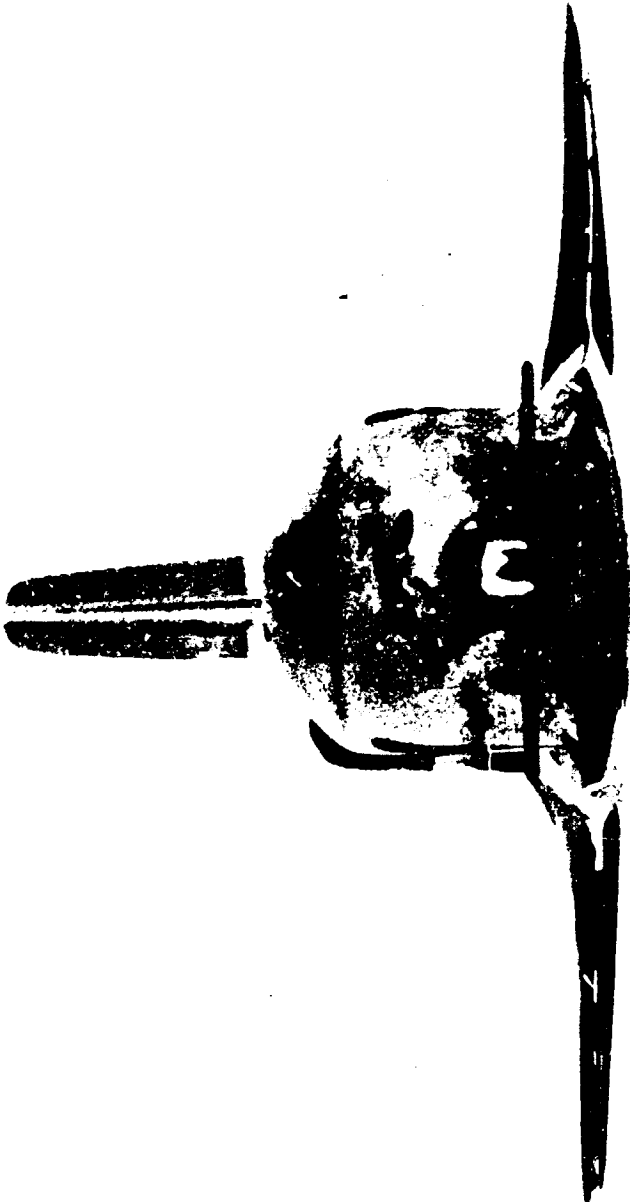


H22-1345
TRAINER



(c) Top Oblique View

Figure 8. - Concluded.



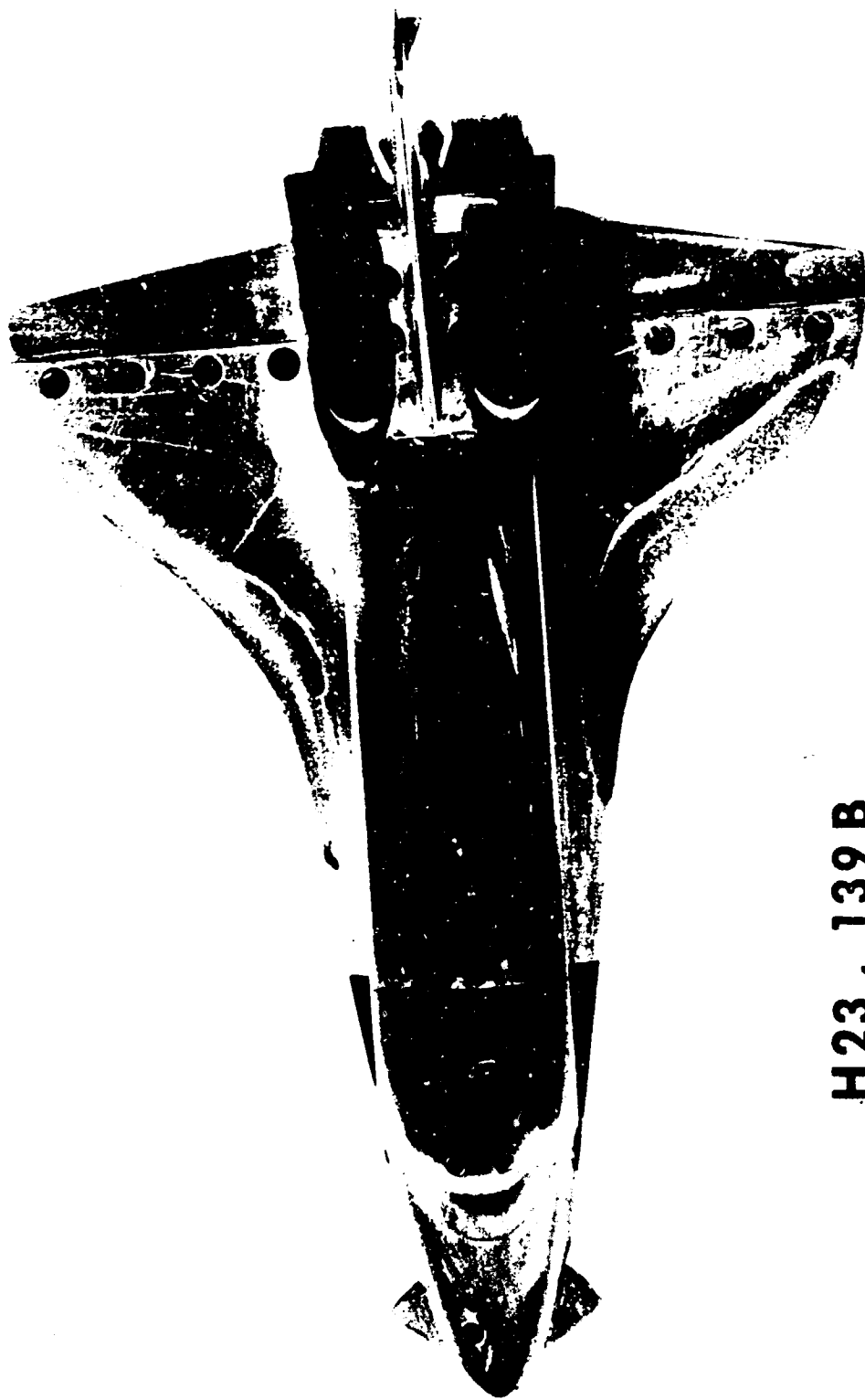
H23, 139B

TRIMMER



(a) Front View

Figure 9. - Configuration 139B - H23 Trimmer.



H23, 139B

TRIMMER



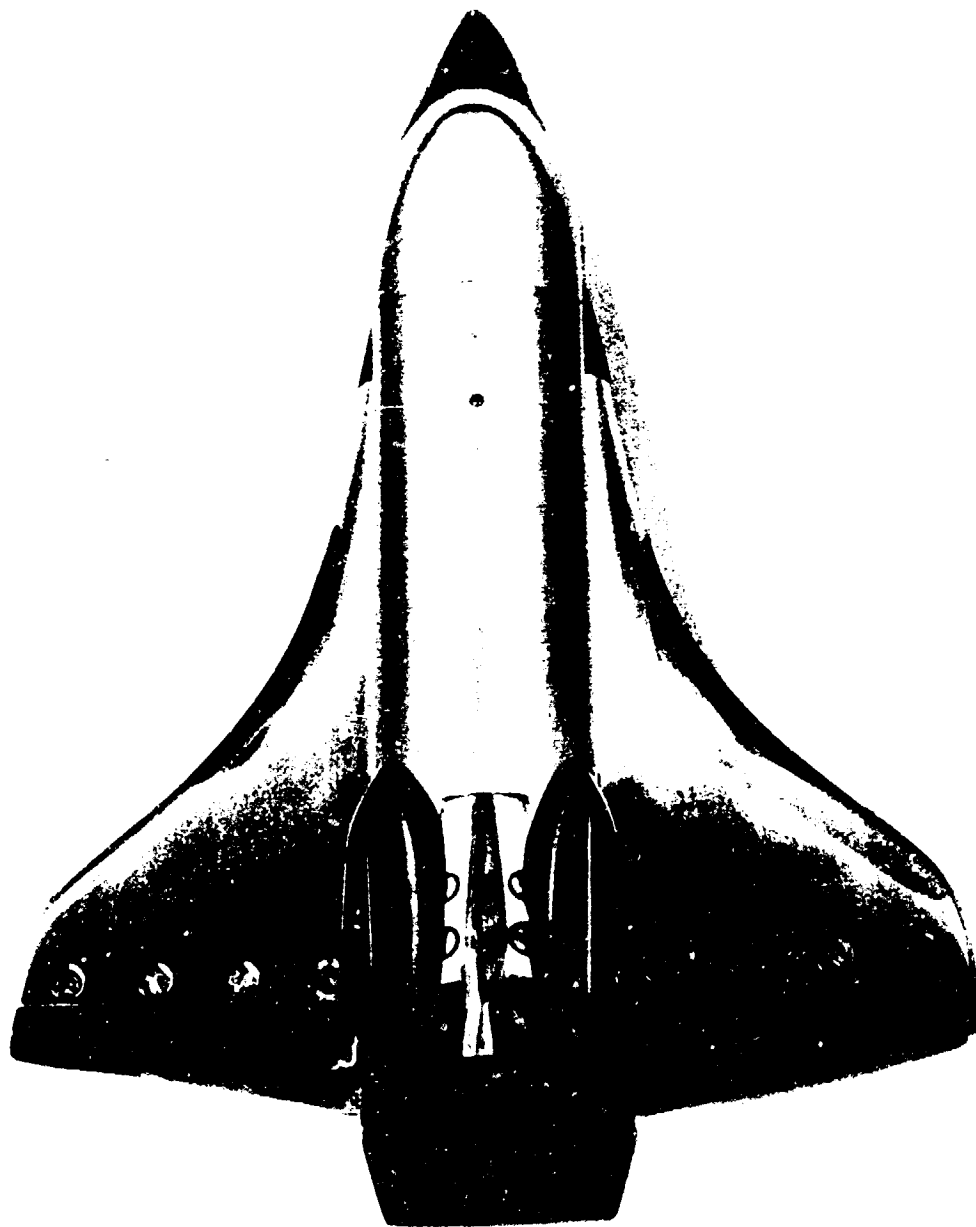
(b) Top View

Figure 9. - Continued.



(c) Top Oblique View

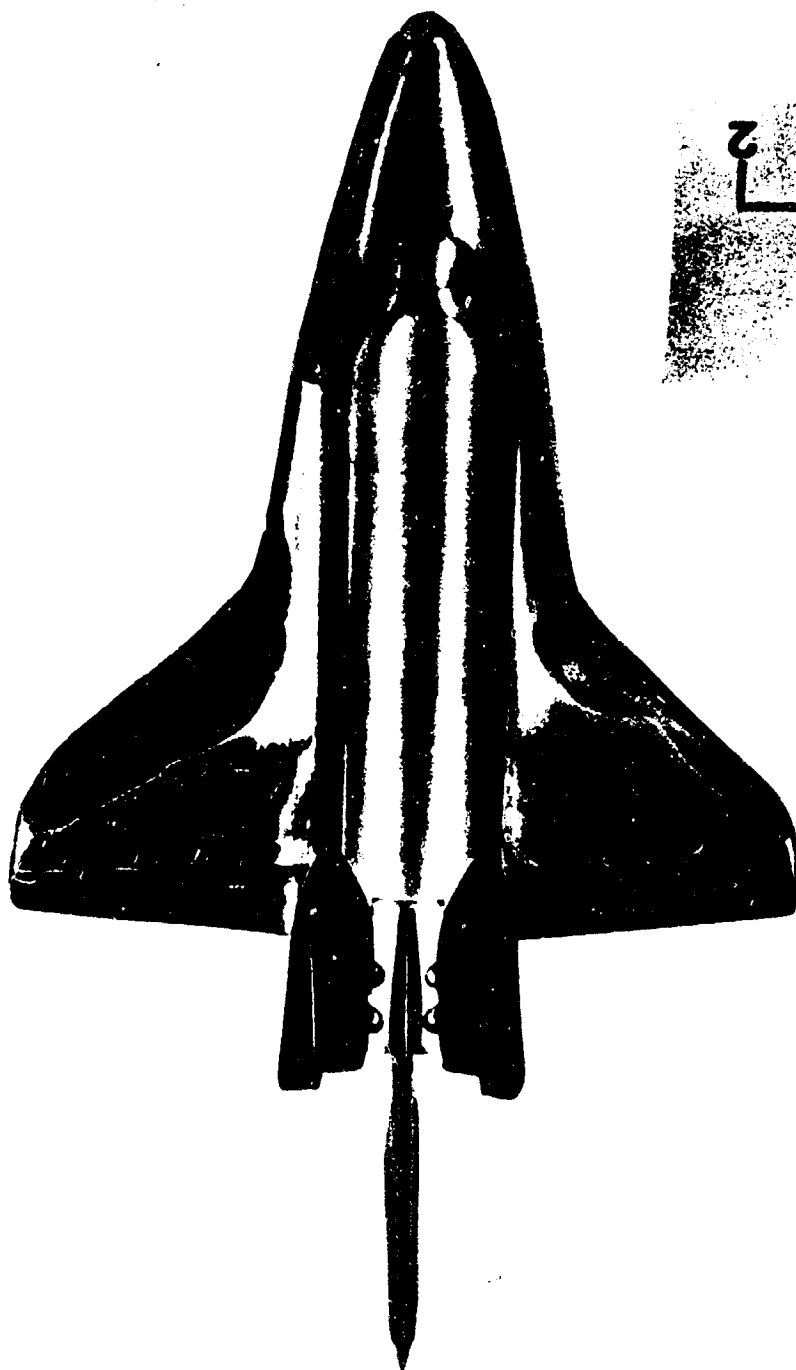
Figure 9. - Concluded.



139 500" R



Figure 10. - Configuration 139 With 500 Inch Glove.



139 B

(a) Top View

Figure 11. - Configuration 139B.



139 B



(b) Side View

Figure 11. - Concluded.

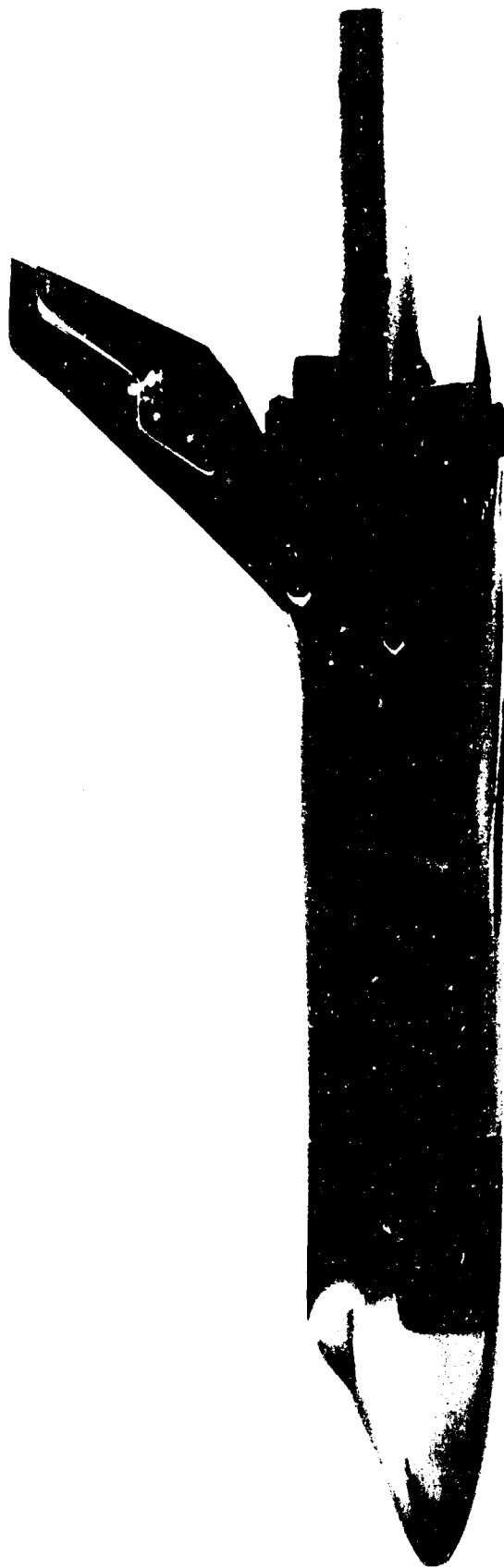
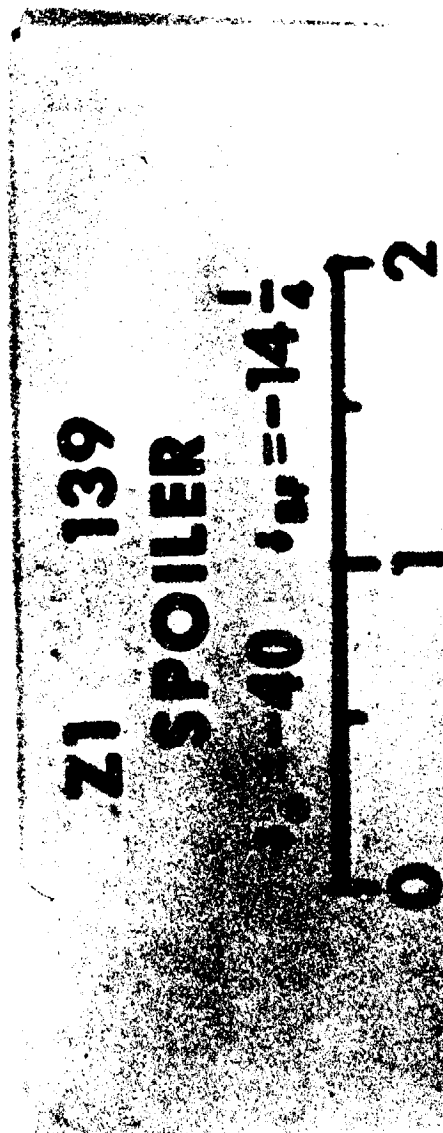
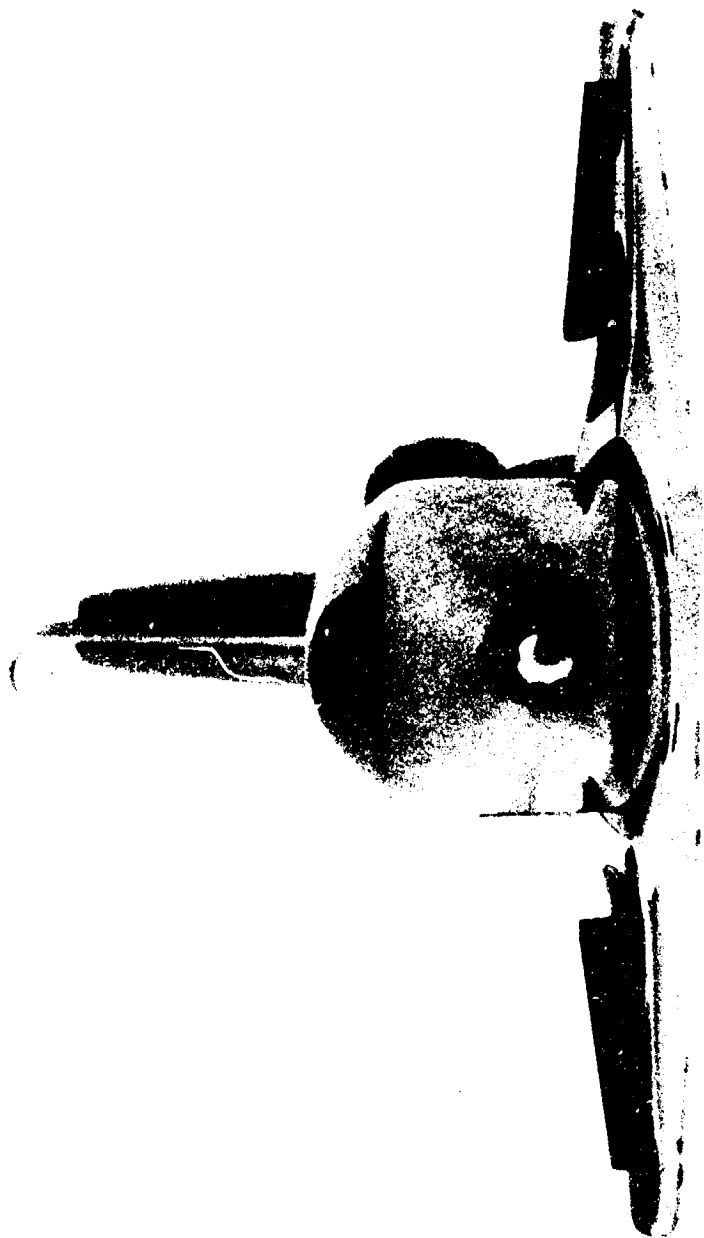
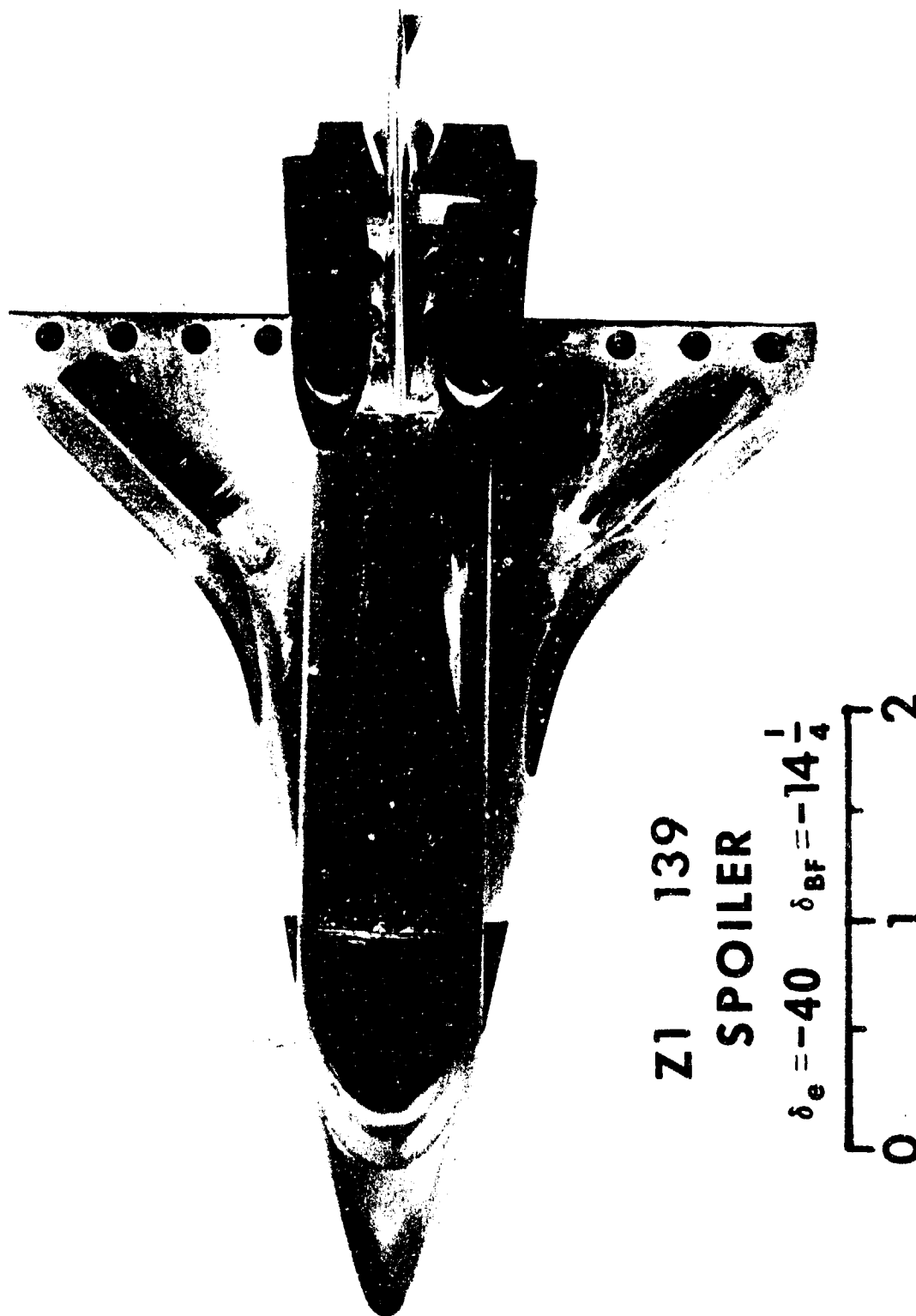


Figure 12. - Configuration 139B With Alternate Nose.



(a) Front View

Figure 13. - Configuration 139 - Z1 Spoiler.



(b) Top View

Figure 13. - Continued.



21 139
SPONTR
14. 30
0

(c) Top Oblique View

Figure 13. - Concluded.



F5 **F6**

BODY FLAPS



Figure 14. - Body Flaps - F₅ and F₆.

DATA FIGURES

MSFC 574(CA48) CR3 1393

REFERENCE INFORMATION

SCALE
ZMPP
YMPP
XMPP
BREF
LREF
SREF

8.

**YASE Y
7000**

DA 07
RCE

250
750

DATE
DE
-14-
13.

135
136
137

Q Q
DATE 1-87 1-87

88

53 2

E VALU
 BETA
 AILAC

100
100
100

993.5
.0
.6
PARAN

17

MAC
ELE
SPD

888888

245

000000

5

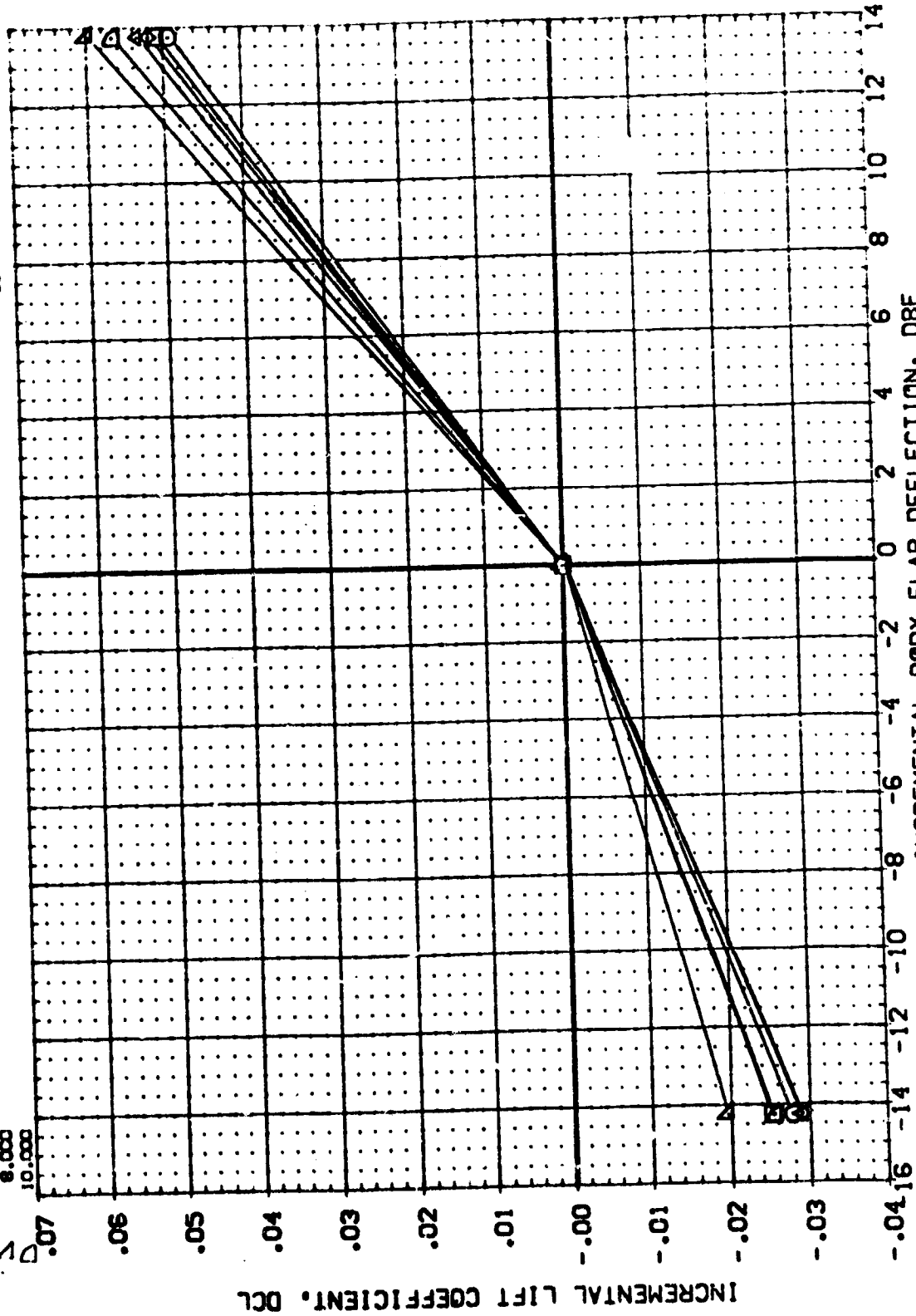


FIG. 33
INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

MSFC 574(0A48) ORB 139B

(L87024)

SYMBOL	ALPHA	MACH	ELEVTR	SPDRK	PARAMETRIC VALUES	DATA SOURCE	DATA SET	DBF	SCALE	REFERENCE INFORMATION
□	12.000	.600	.000	999.99C	DBF	L87024	.000	2690.0000	53.17	2690.0000
◇	14.000	.600	.000	999.99C	DBF	L87024	.000	471.0000	53.17	471.0000
△	16.000	.600	.000	999.99C	DBF	L87024	.000	936.7000	53.17	936.7000
▽	18.000	.600	.000	999.99C	DBF	L87024	.000	838.7000	53.17	838.7000
▽	20.000	.600	.000	999.99C	DBF	L87024	.000	0.0000	53.17	0.0000

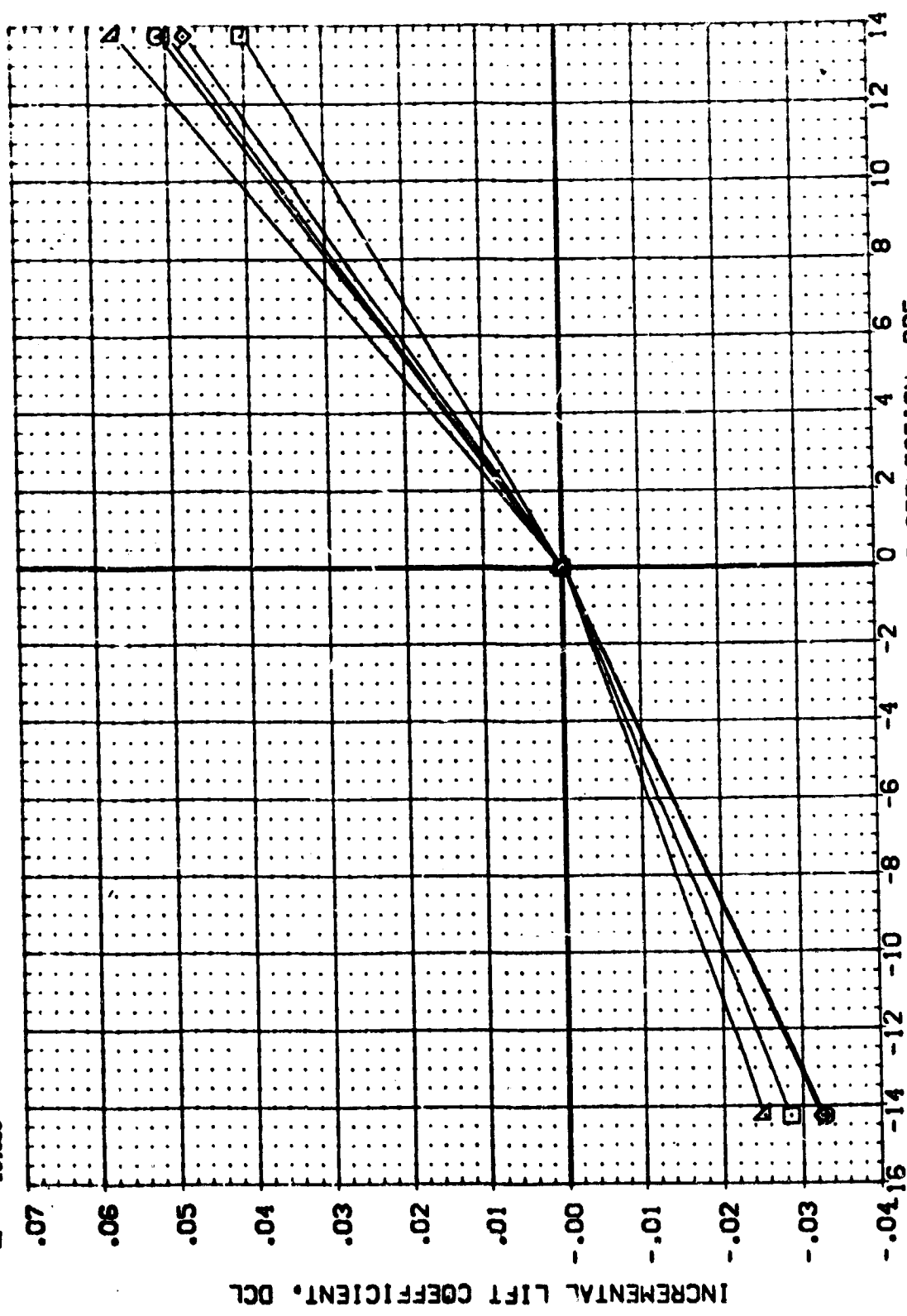


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

MS=C 574(CA48) GRB :39B

011044

ALPHA
12.000
14.000
16.000
18.000
20.000

**HACH
ELEVT
SPD80M**

PARA VETI
.900
.000
99.99C

VALDES
WESTA
MILBORN

88

13

99

Box 351

8

474
936
B36

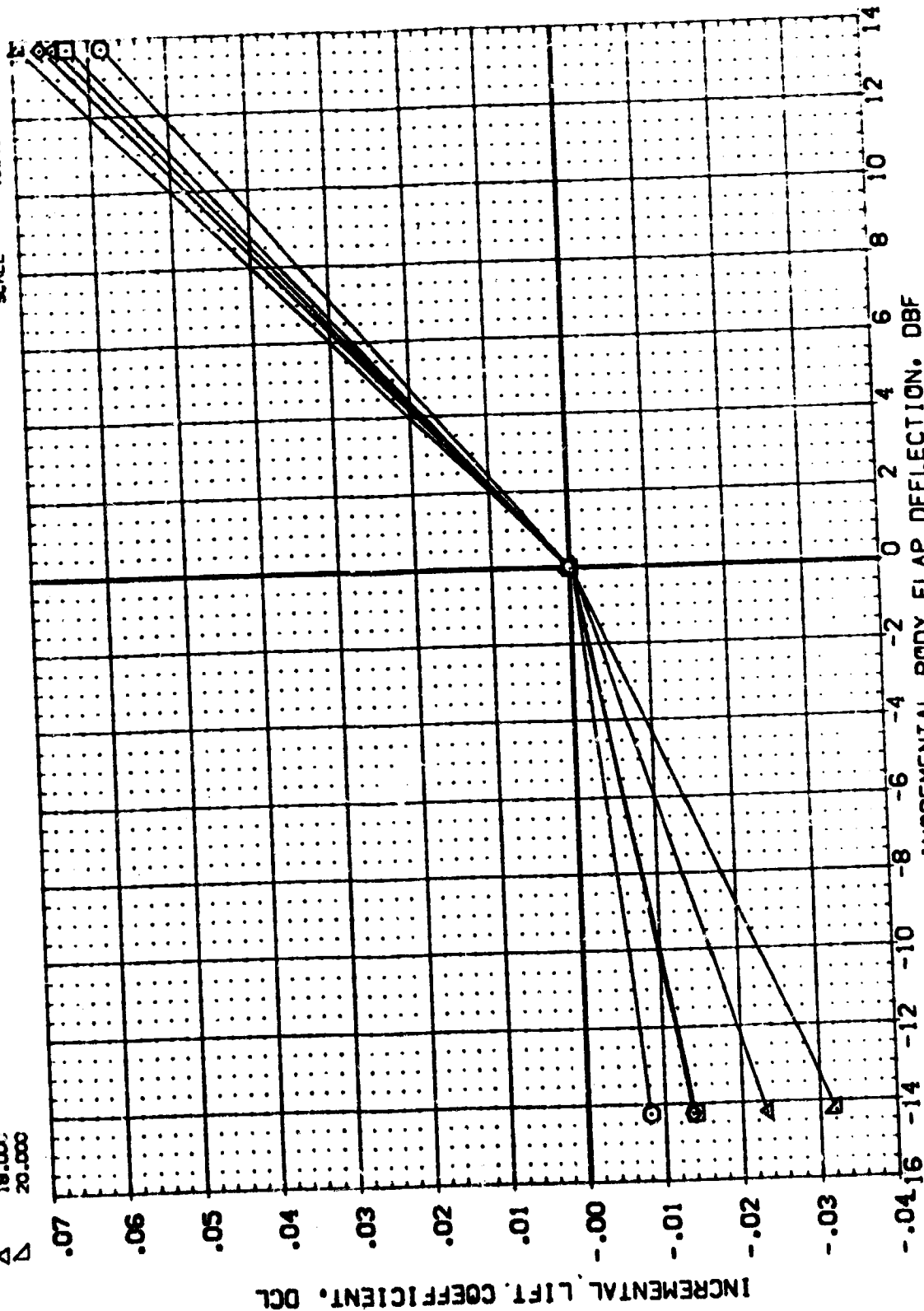


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 1398

MS=C 574(CA48) QRB 1393

REFERENCE INFORMATION

2690	0000	50 FT.
474	0000	IN
936	7000	1
838	7000	2
	0000	3
	0000	4
	0000	5
	0040	6

DATA SOURCE	DATASET	DBF	0.000
DBF	L87008		
-14.250			
13.750			

```

.DOC DATASET
.DOC L87024
.DOC L87027

```

PARAMETRIC VALUES
1.20G BETA
.000 AILRON
999.990

5748
MACH
ELEVTR
SPOBAM

ALPHA
1.000
2.000
4.000
6.000
8.000

040000

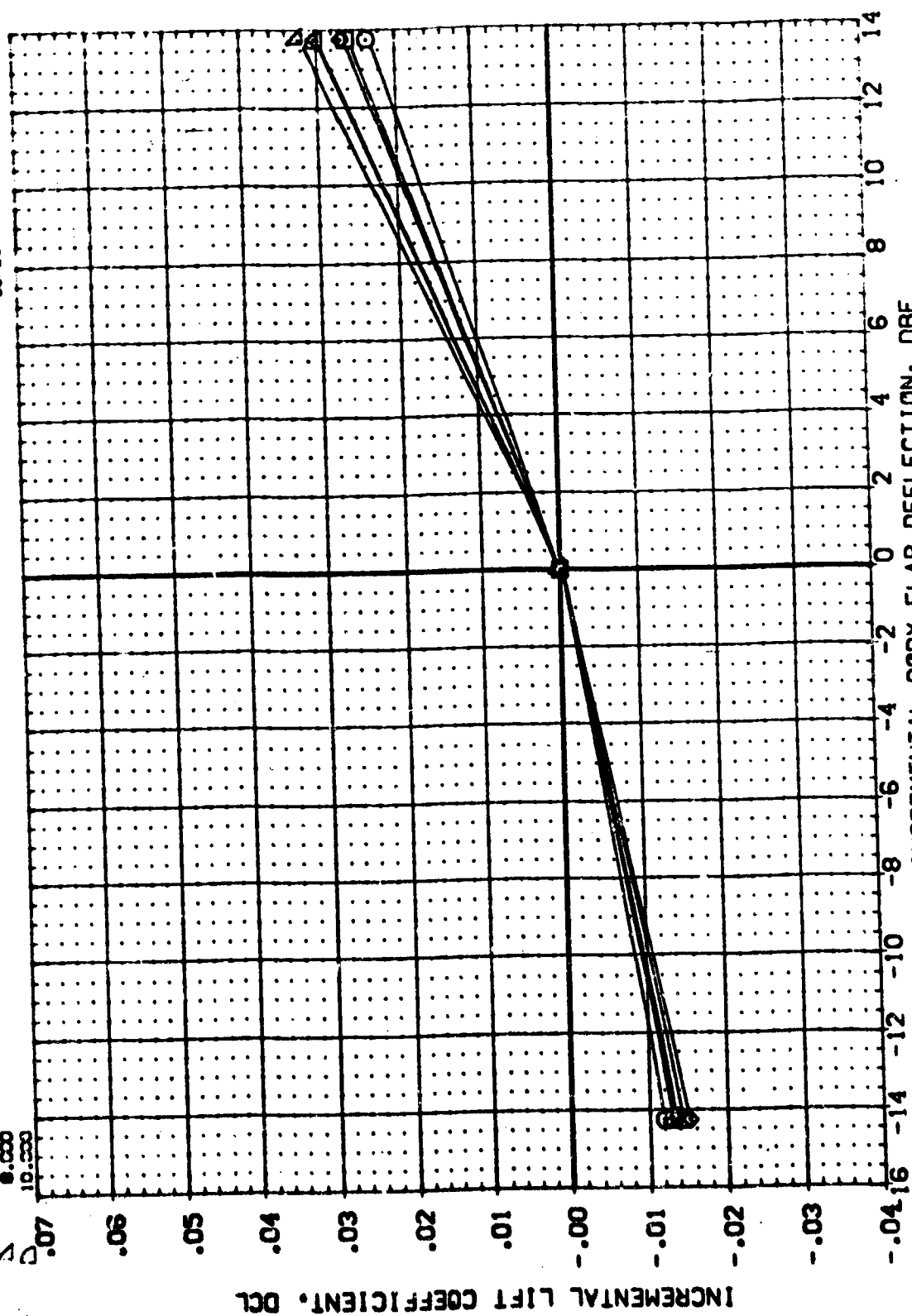


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

VSFC 574(0A48) CR3 :39B

(L87024)

SYMBOL		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
□	ALPHA	MACH	BETA	.000	DATASET	SRLF	SC
□	12.000	1.200	.000	.000	L87008	LREF	2690.0000
□	14.000	ELEVTR	AILRON	-14.250		BREF	474.8000
□	16.000	SPOBRK	999.990	13.750		XREF	936.7000
△	18.000					YREF	838.7000
△	20.000					ZREF	.0000
						SCALE	.0010

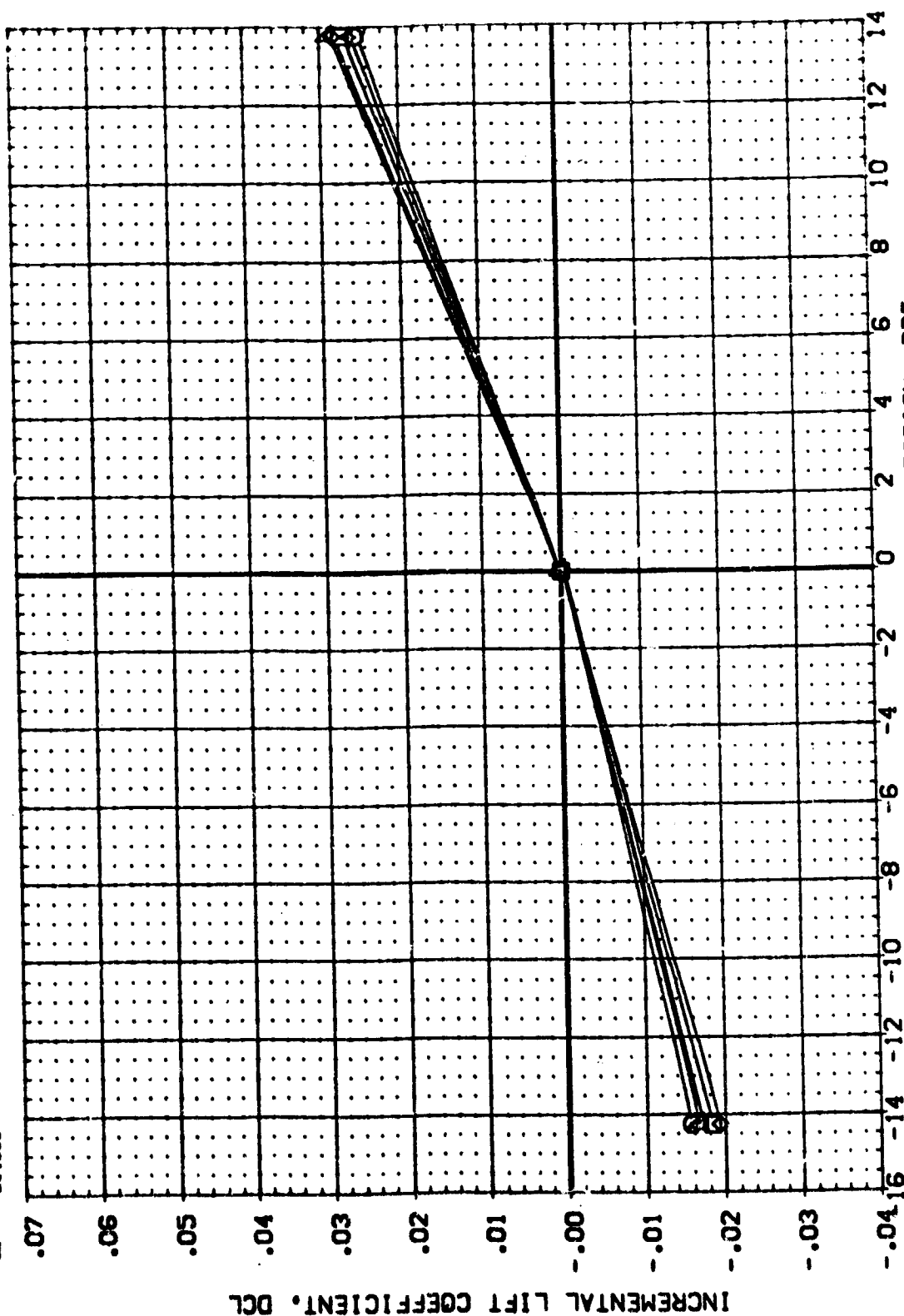


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

MSFC 574(0A48) ORB 139B

(L87024)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	MACH	DBF	DATASET	SREF	SG.F.T.
.000	1.960	.000	.000	2690.0000	474.8000
2.000	ELEVTR	.000	L87024	LBREF	936.7000
4.000	SPDRK	.000	-87027	LBREF	838.7000
6.000				YMRP	.0000
8.000				ZMRP	.0000
10.000				SCALE	.0040

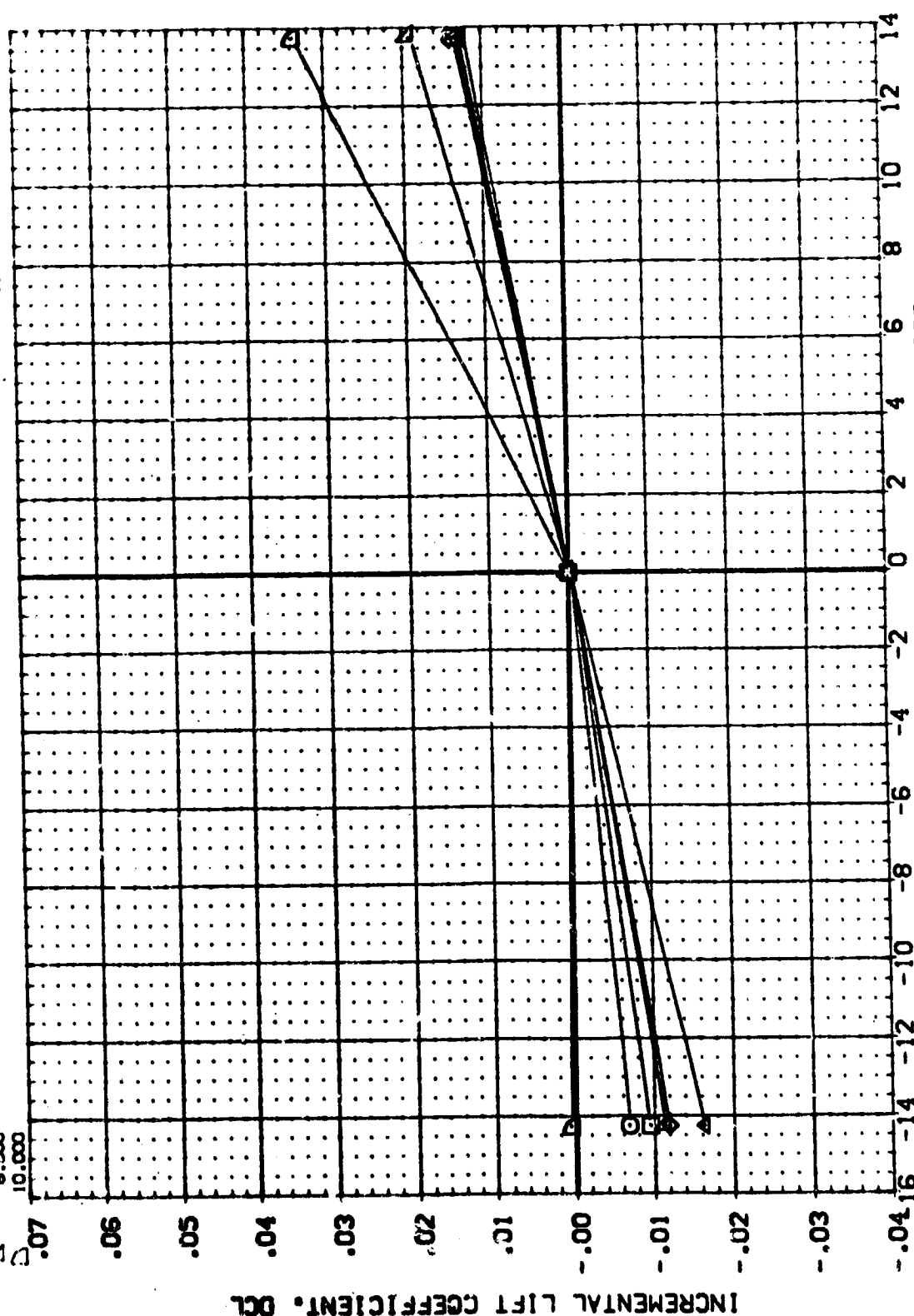


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

MSFC 574(0A48) ORB :39B

(.87024)

REFERENCE INFORMATION
SCALING
REF 2090.0000
LREF 474.8000
BREF 936.7000
XREF 838.7000
YREF 6000.0000
ZREF 6000.0000
SCALE .0040

DATA SOURCE
DBF -14.250
13.750

DATASET DBF
L87008

PARAMETRIC VALUES
BETA
ALL ON

MAC
ELEV
SPDR

ALPHA
.000
2.000
4.000
6.000
8.000
10.000

SYMBOL
07
06
05
04
03
02
01
00
-01
-02
-03
-04

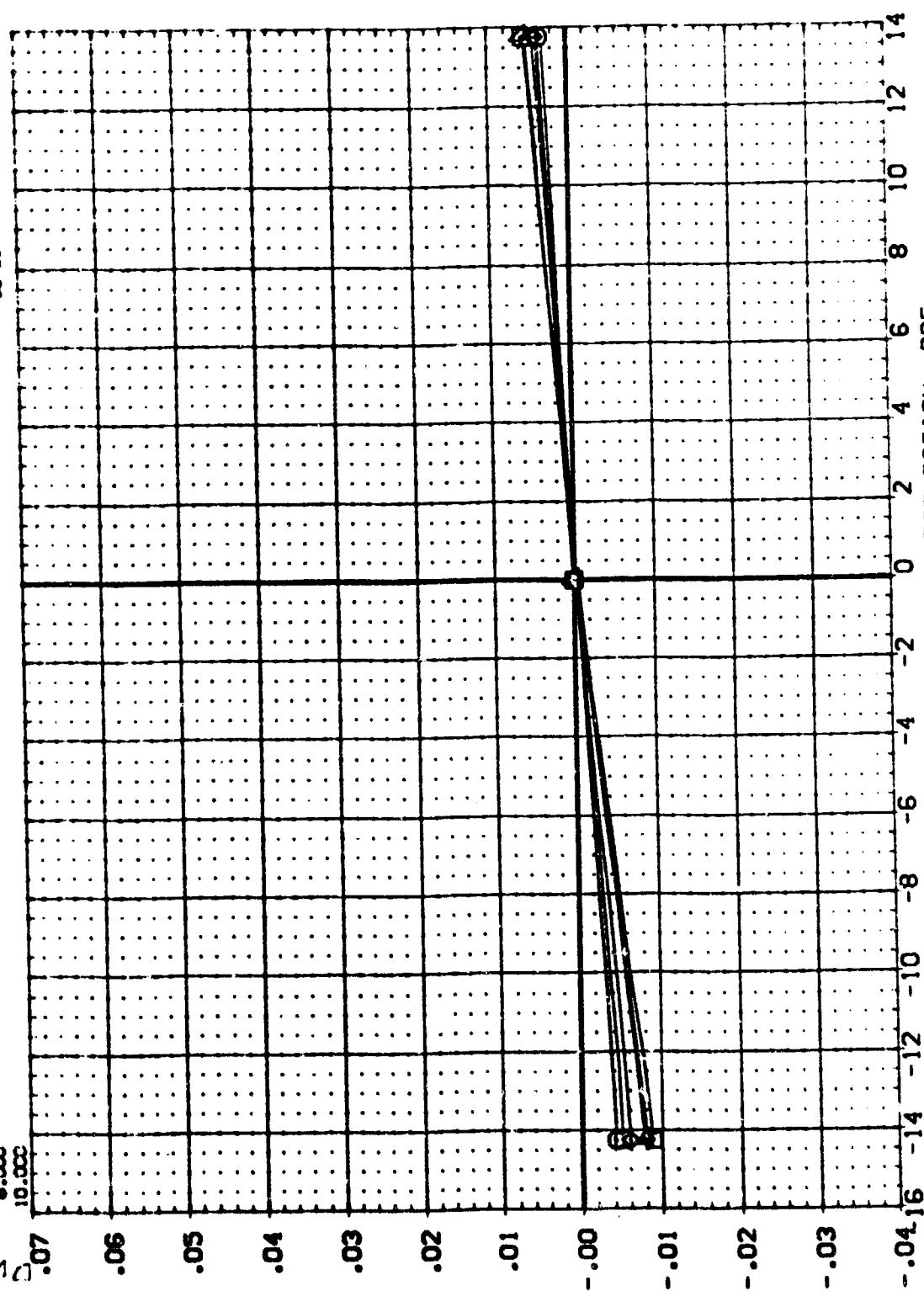


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

MSFC 574(0A48) ORB 1398

(_L87024)

REFERENCE INFORMATION
SC.F1.
2690.0000
474.8000
936.7000
838.7000
0.0000
0.0000
0.0040

DATA SOURCE
DBF
-14.250
13.750

DATASET
L87024
L87027

PARAMETRIC VALUES
BETA
AILRON

MACH
ELFVTR
SF3BRK

ALPHA
.000
2.000
4.000
6.000
8.000
10.000

SYMBOL
□
◇
△
▽
○

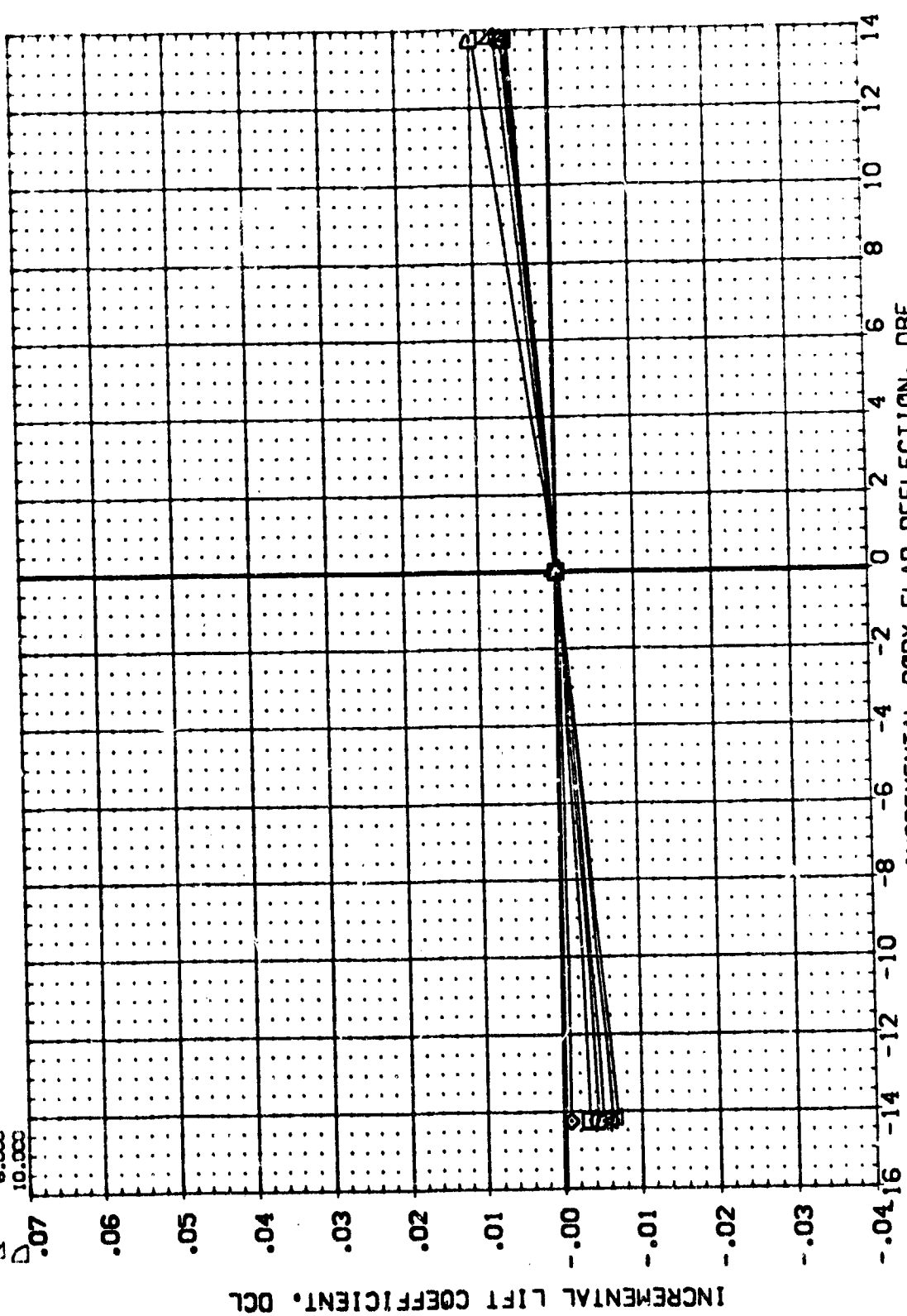


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 1398

MS=C 574(0A48) 0R3 139B

ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
12.000	MACH 4.950 BETA	DBF DATASET	SREF 2690.0000
14.000	ELEVTR .000	-14.250 L87008	LBREF 474.8000
16.000	SPOBRK 999.990	L87024 .000	SREF 936.7000
18.000		L87027 .000	XREF 838.7000
20.000			YREF .0000
			ZREF .0000
			SCALE .0010

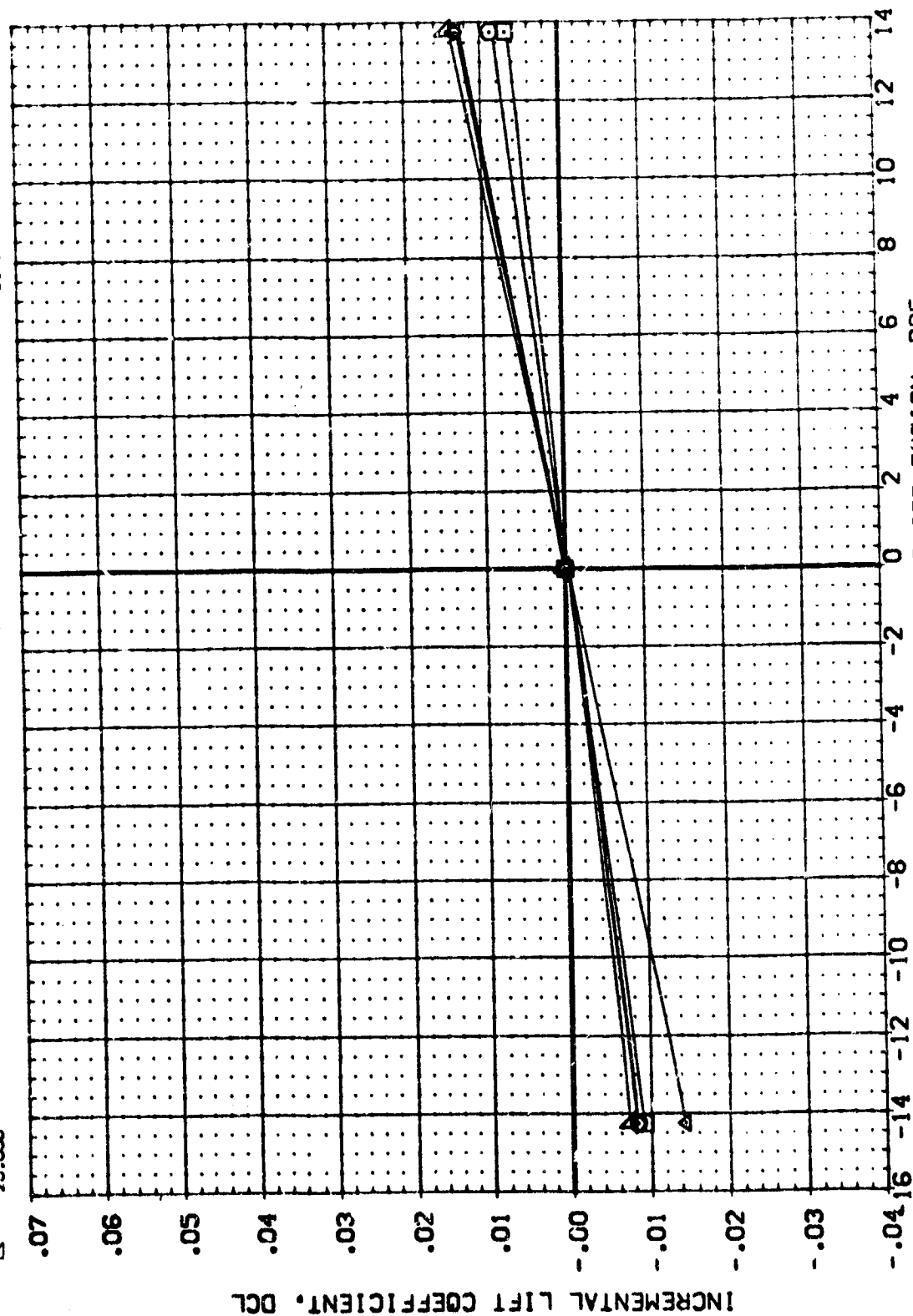


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

III

MSFC 574(0A48) ORB 139B (L87025)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
SYMBOL	VALUE	DBF	DBF	SREF	SCALE
ALPHA	20.000	.000	.000	LREF	2690.0000
MACH	2.990	.000	.000	BREF	474.8000
ELEVTR	.000	.000	.000	YREF	936.7000
SPDRK	999.990	.000	.000	ZREF	838.7000
				SCALE	.0040

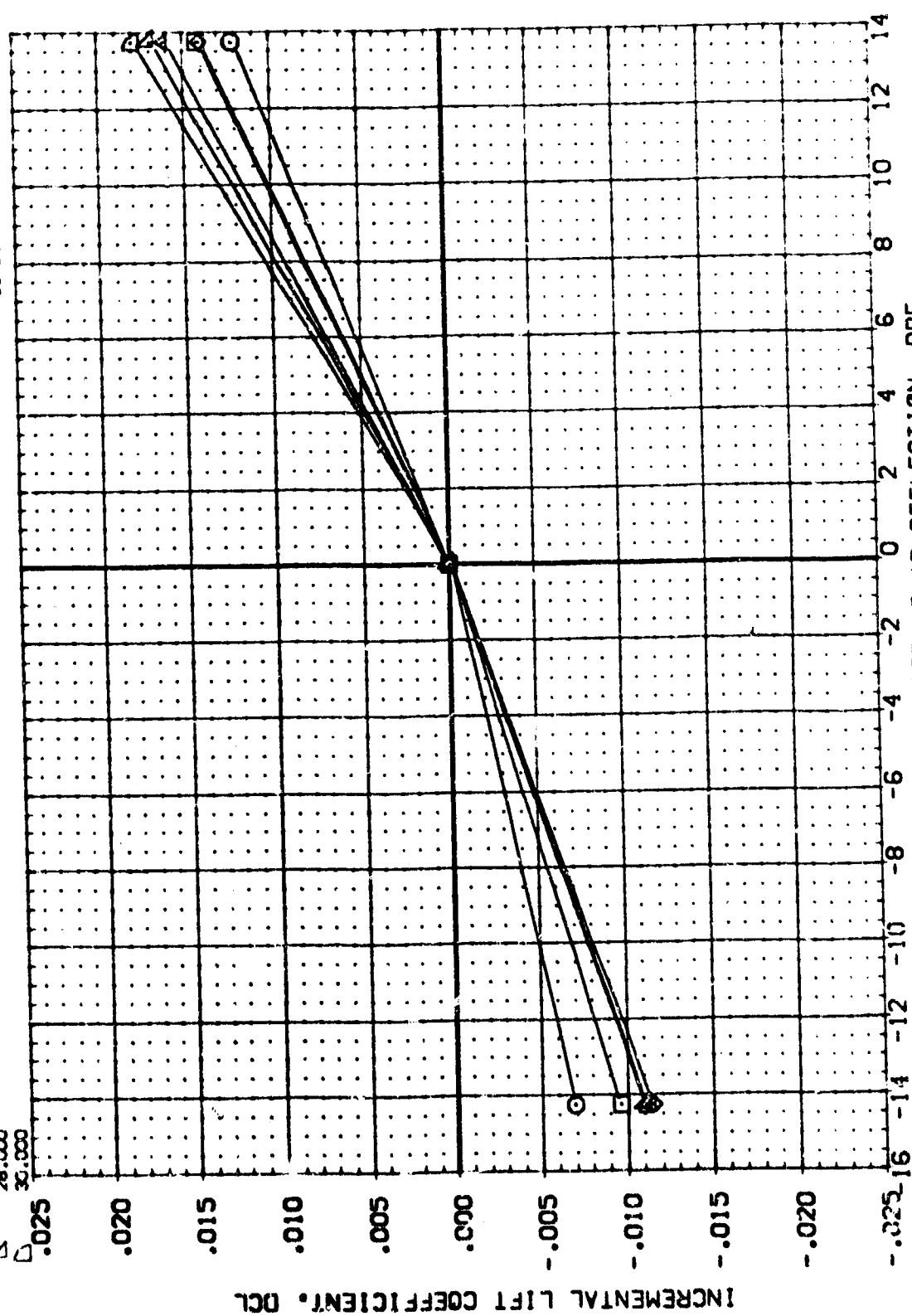


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

REFERENCE IN OPRA'S
S.F.
7-
7-
7-
7-
7-
7-

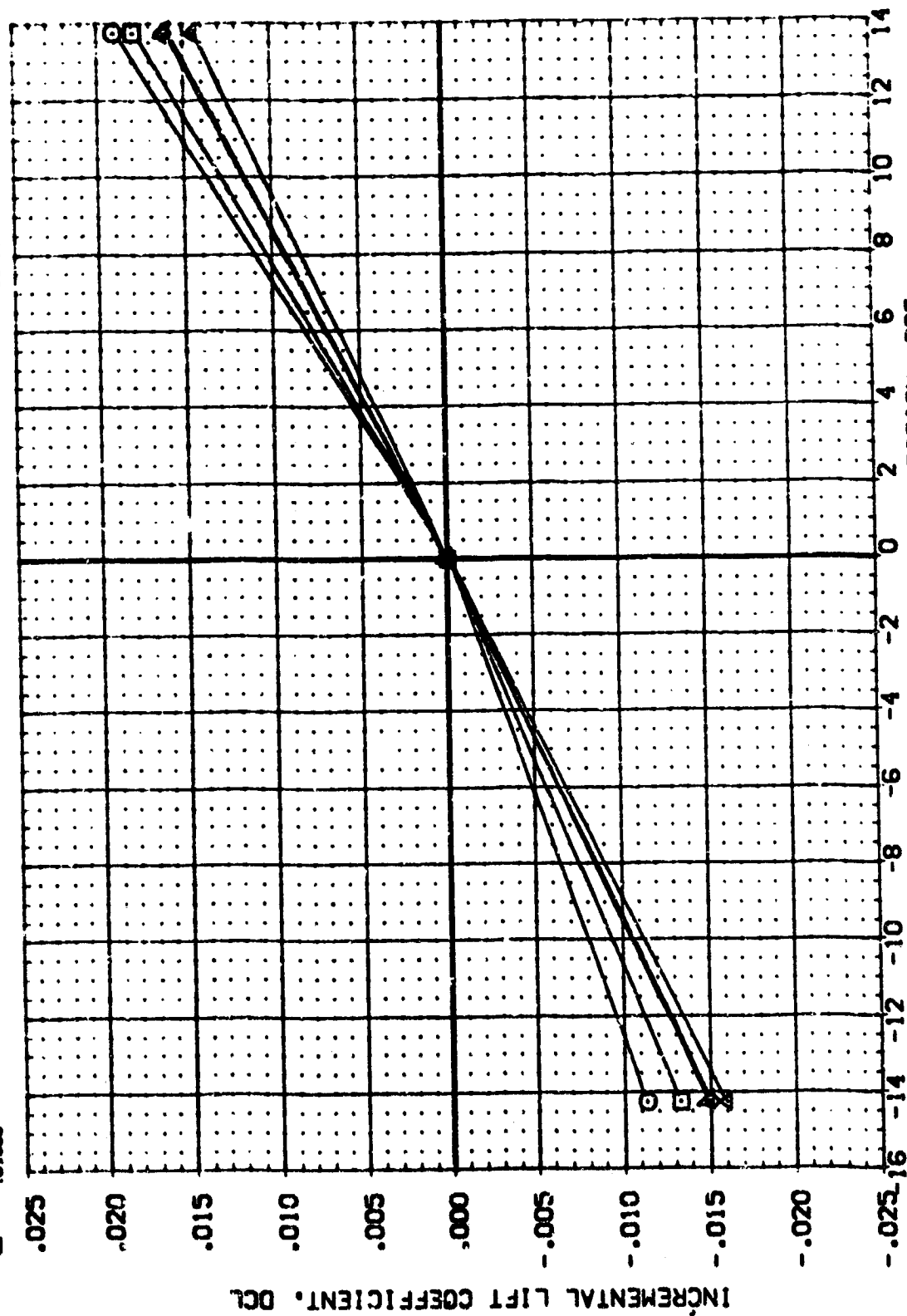


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 1398

(187025)

VSFC 574(0A48) ORB :39B

REFERENCE INFORMATION
 SREF 2690.0000
 LRF 474.0000
 BOT 936.7000
 XREF 838.7000
 YREF 3000.0000
 ZREF 3000.0000
 SCALE .004C

DATA SOURCE
 DBF .000
 DATASET L87009

DATASET
 DBF .000
 DATASET L87025
 DBF .000
 DATASET L87028

PARAMETRIC VALUES
 MACH 4.560
 BETA .000
 AILRON 999.999

SYMBOL
 ALPHA 20.000
 MACH 22.000
 ELEVTR 24.000
 SPOBRK 26.000
 28.000
 30.000

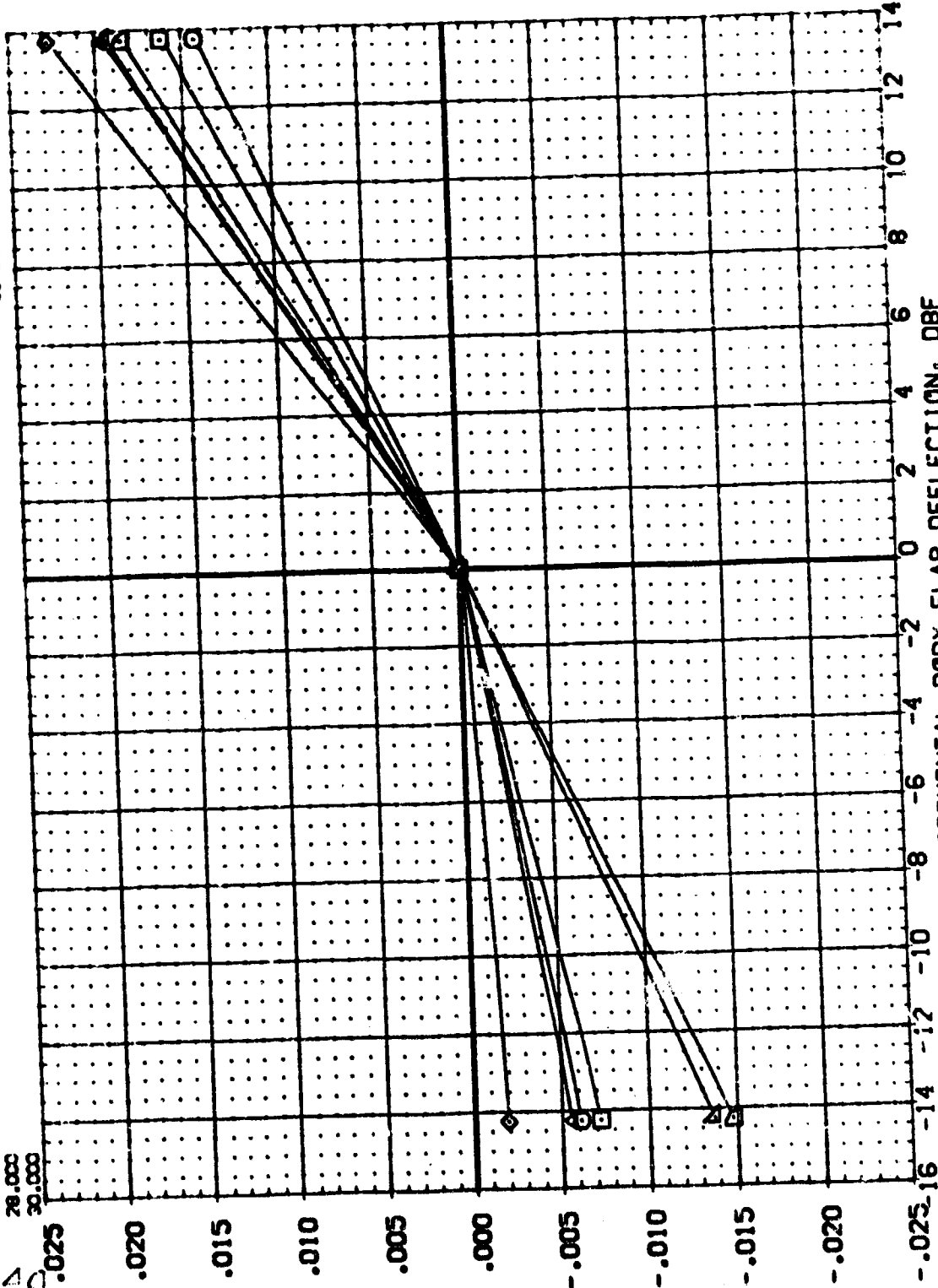


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

VSFC 574(CA48) CR3 1393

SYMBOL	ALPHA
0	32,000
1	34,000
2	36,000
3	38,000
4	40,000

PARAMETRIC VALUES	
MACH	4.960 BETA
ELEVTR	.000 AIRRON
SPOBRK	999.990

	DATA SOURCE
.000 DATASET DEF	-14.750
.000 L87025	13.75C
.000 L87026	

DATA SOURCE	DATE	DB	.00C
DB	14.750	187003	

REF	REF NC	TV	ST
SRE	2650	0000	
REF	474	0000	
BRE	936	7000	
XREP	030	7000	
VREP	000	0000	
ZREP	000	0000	
SCALE	000	0000	

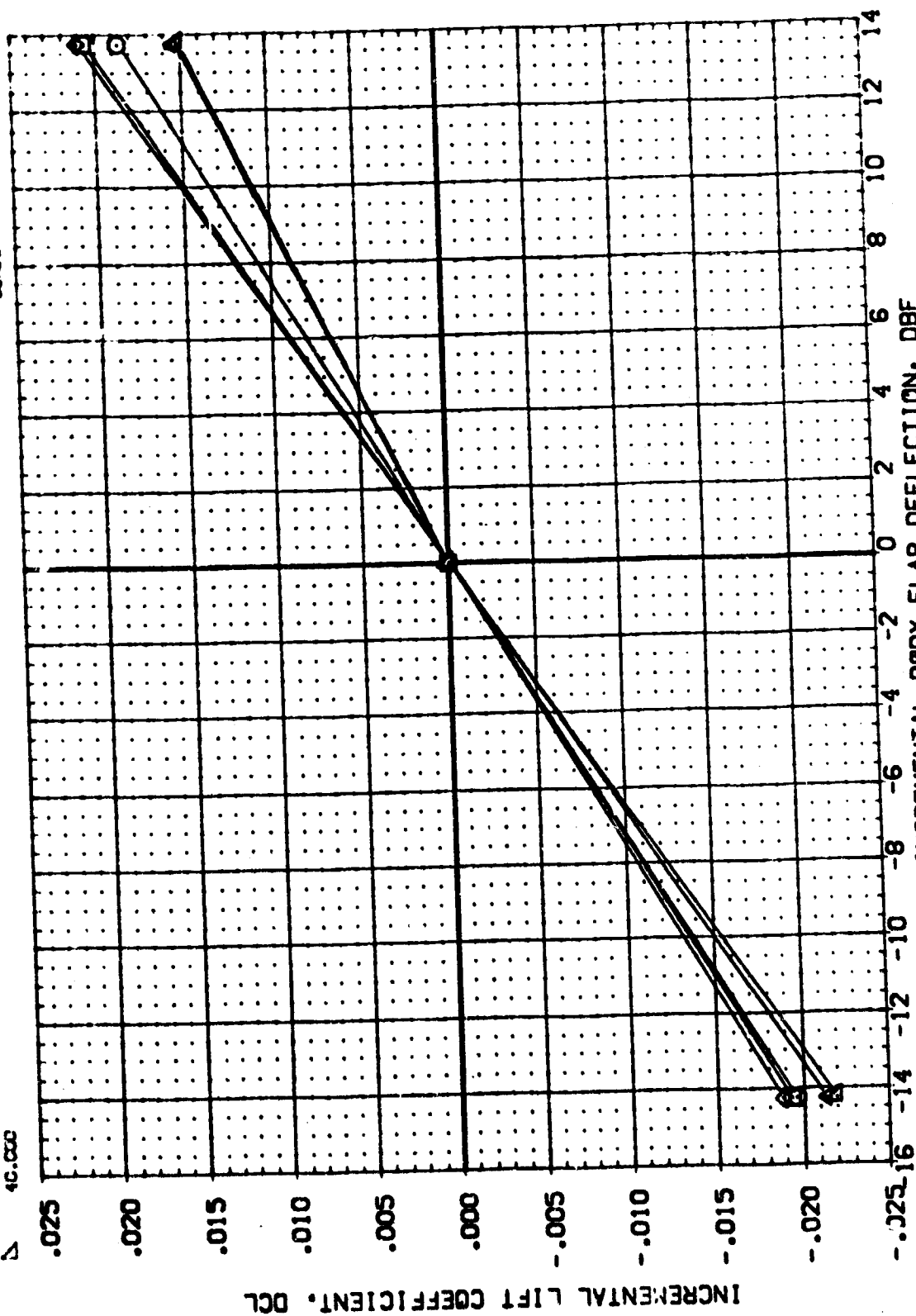


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

(L87026)

MSFC 574(0A48) ORB 1398

SYMBOL
ALPHA
40.000
42.000
44.000
46.000
48.000
50.000

MACH
ELEVTR
SPDRK

PARAMETRIC VALUES
4.960 BETA
.000 AILRON
999.990

DATA SOURCE
DBF
-14.750
13.750

DATASET
L87030

DBF
.000

REFERENCE INFORMATION
SC.F.
7690.0000
474.8000
936.7000
838.7000
0000.0000
0000.0000
0040

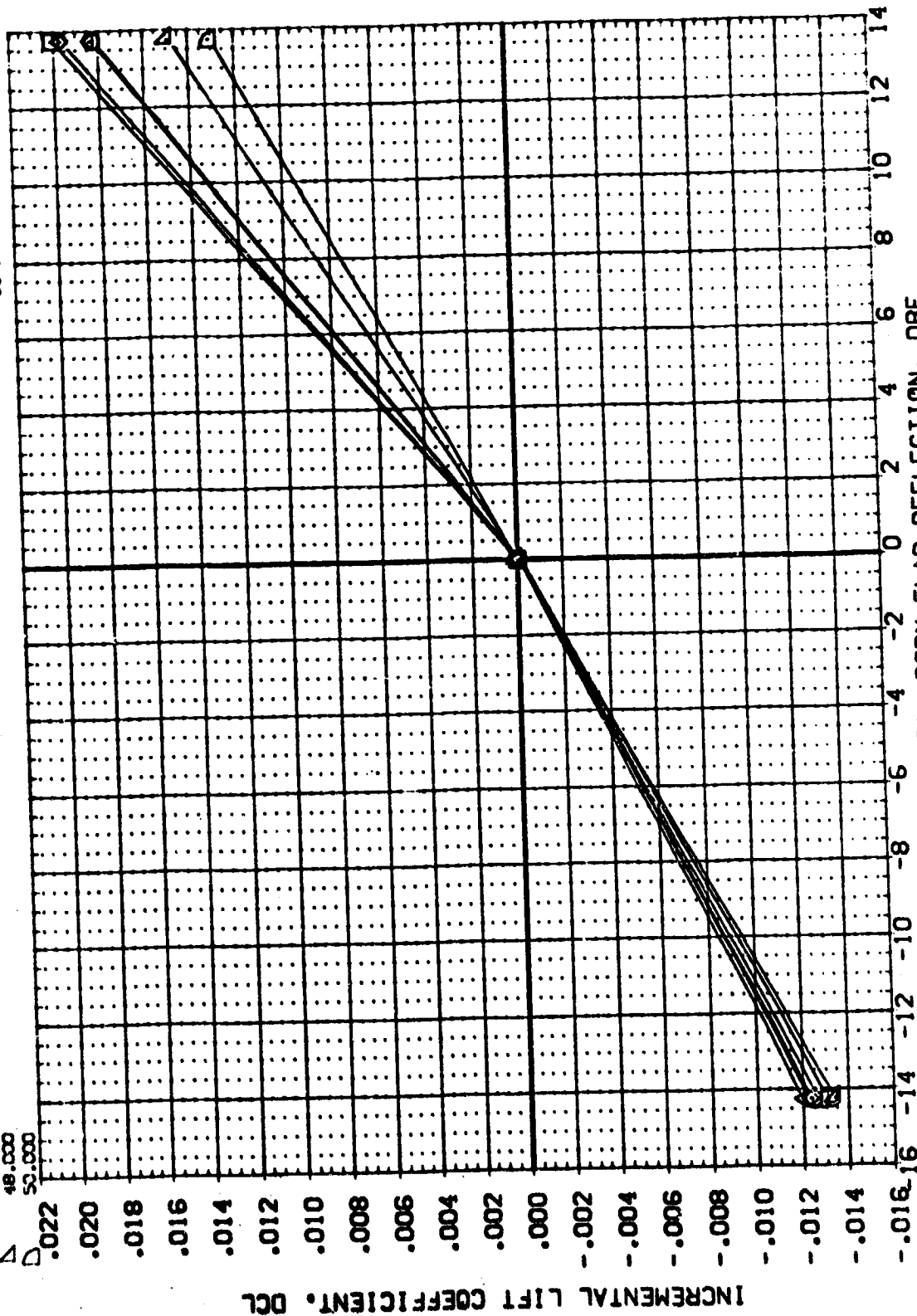
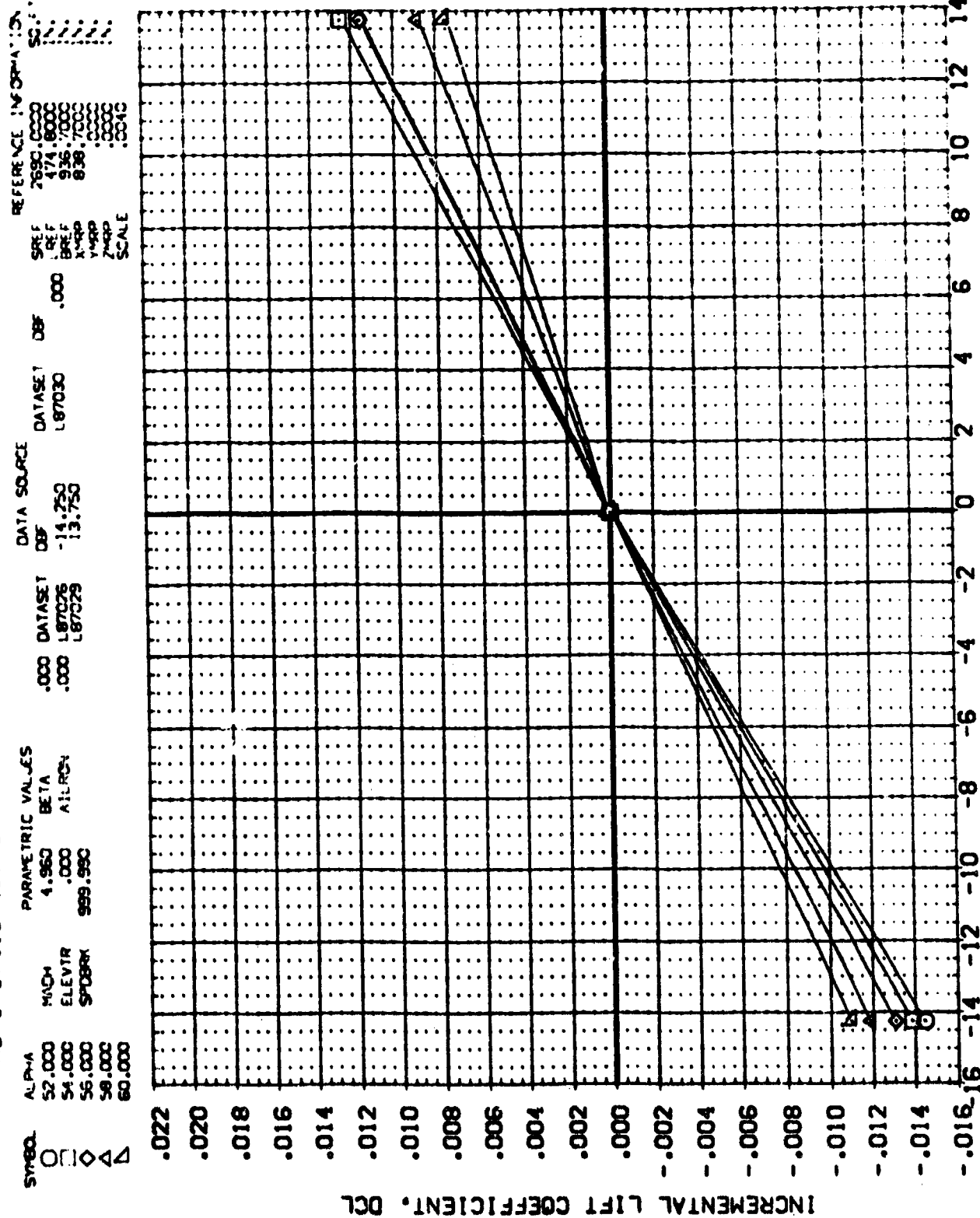


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 1398

MS=C 574(0A48) QRB :393

(187026)



MSFC 574(GA48) CRB 1393

REF ID: A58415

DATA SOURCE	DATASET	DEF	SPEC
DEF	L87008	.000	DEF
14.750			INP
13.750			7400
			SCALE

.000 DATASET
.000 L67024
L67027

ALPHA		PARAMETRIC VALUES	
.000	MACH	.600	BETA
2.000	ELEVTR	.000	AIRLON
4.000	SPOBRK	\$99.990	
6.000			

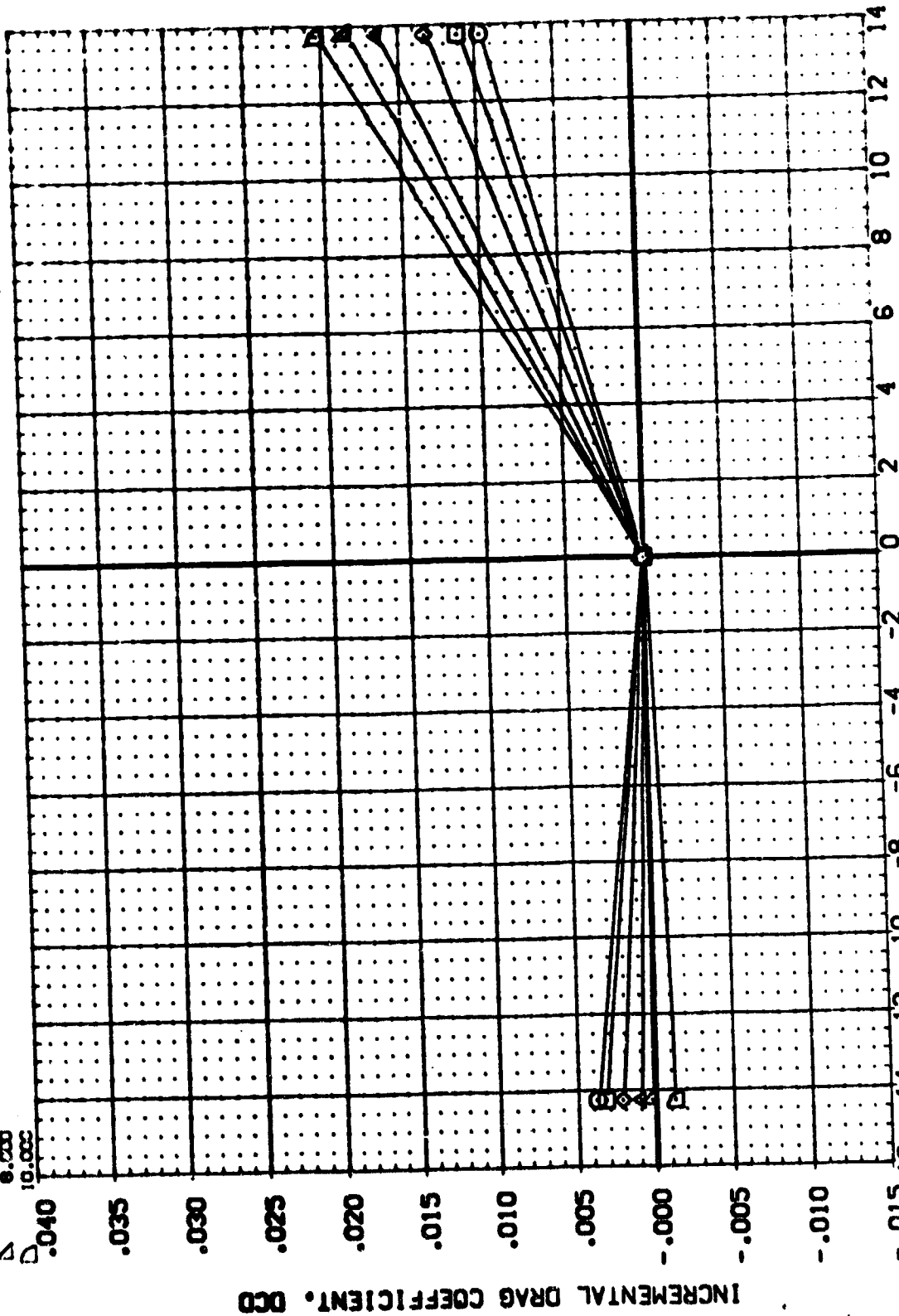


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

MSFC 574(0A48) ORB 1393

(L87024)

SYMBOL		ALPHA		MACH		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
○	12.000	.600	BETA	.000	DBF	.000	SREF	2690.0000	SCALE	1.0000	SCALE
□	14.000	.000	ATLON	.000	DBF	.000	REF	474.0000	SCALE	1.0000	SCALE
◇	16.000	.999.990		.000	DBF	.000	SPR	936.7000	SCALE	1.0000	SCALE
△	18.000			.000	DBF	.000	YPR	838.7000	SCALE	1.0000	SCALE
▽	20.000			.000	DBF	.000	ZPR	.0000	SCALE	1.0000	SCALE

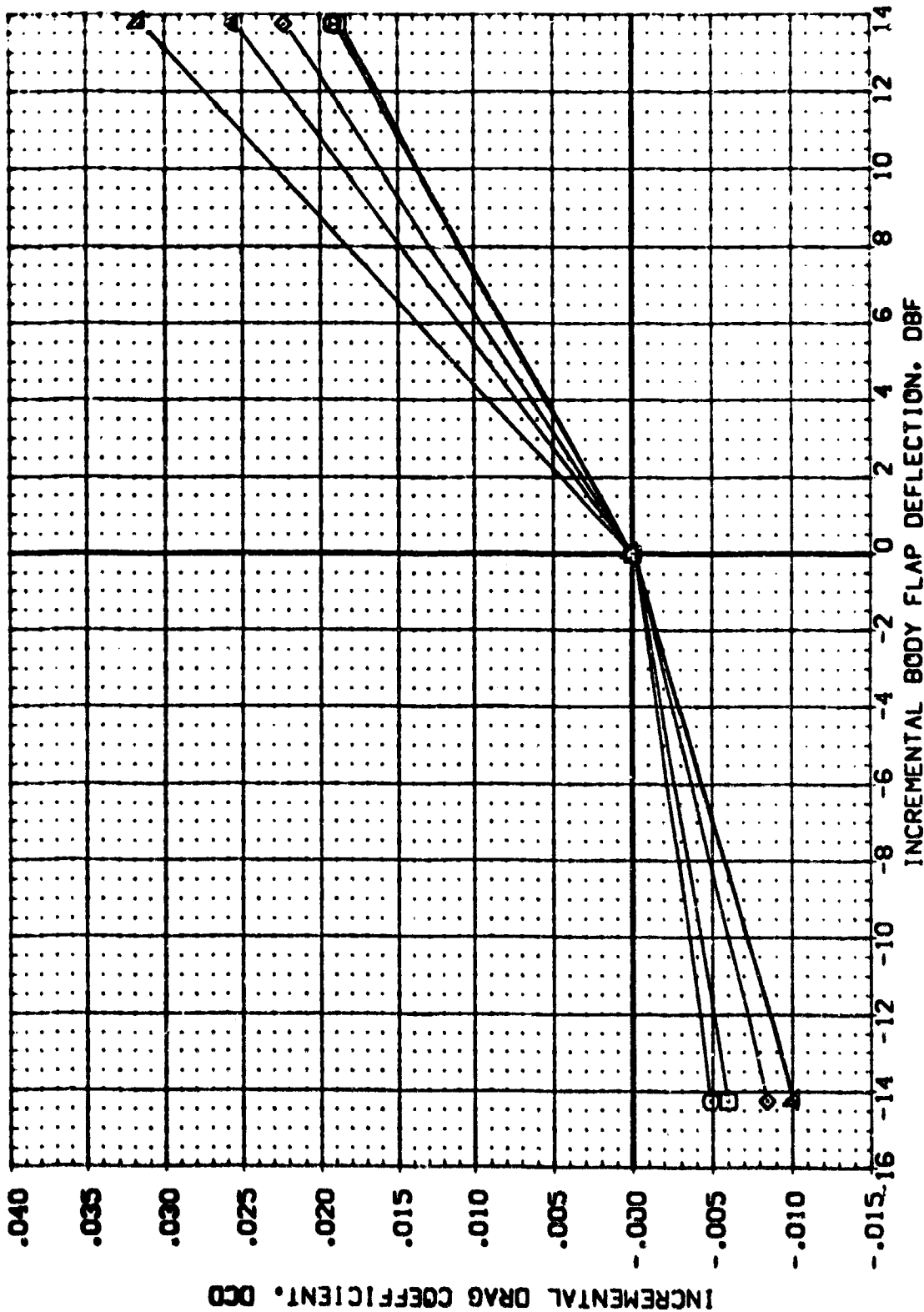


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 1398

MSFC 574(CA48) ORB 139B

REFERENCE INFORMATION

Z-77777
Z09C Z000
A74 B000
Q36 T000
B38 Q000
 P000
 U000
 V000
 W000

DATA SOURCE	DATASET	DB	SIZE
DBF	L67008	.000	1.1 MB
			9.9 MB
			1.1 MB
			1.1 MB

.000 DATASET
.000 L87024
L87027

PARAMETRIC VALUES

**MACH
ELECTR
SPIDER**

ALPHA
0.000
2.000
4.000

OLIO

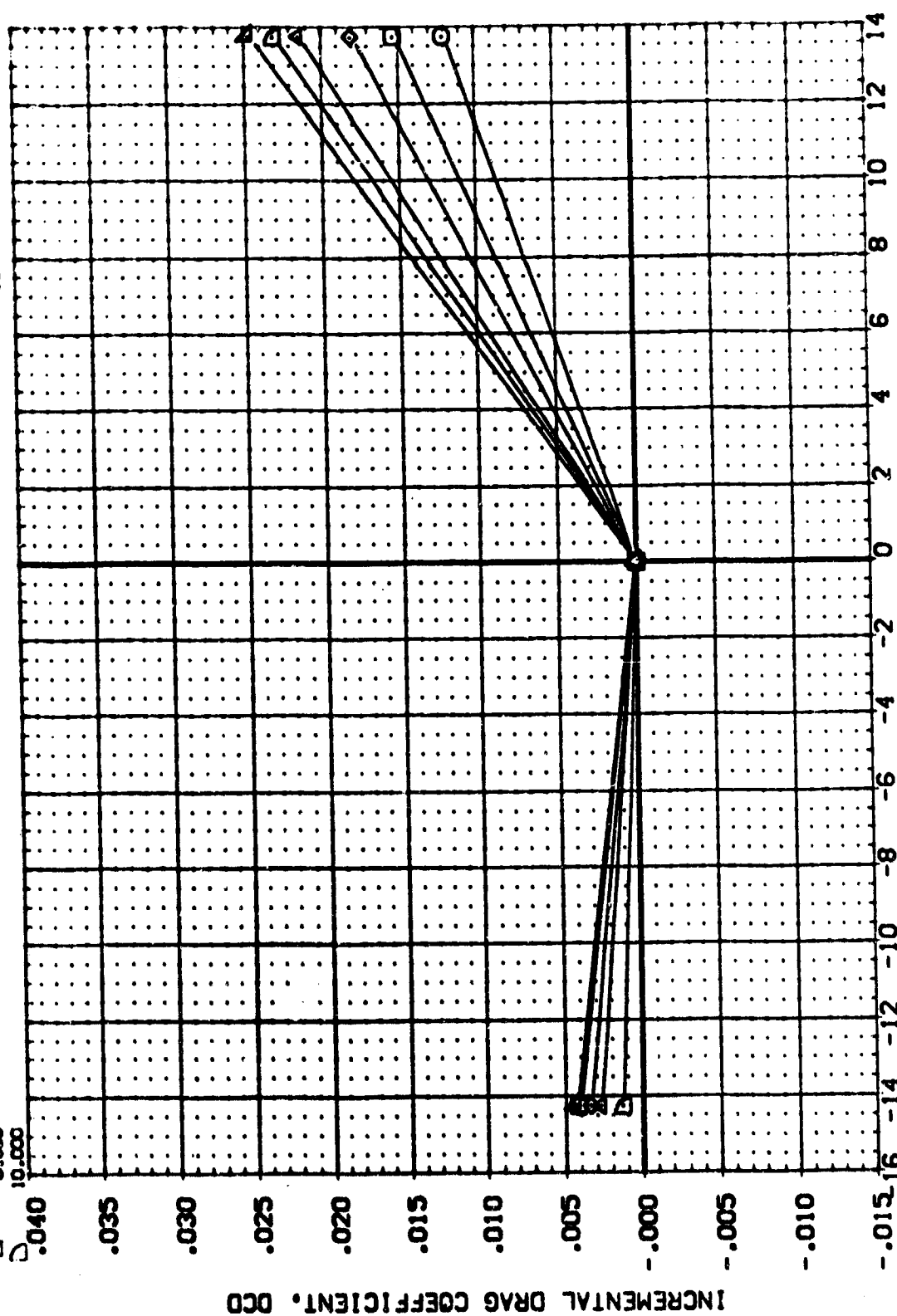


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

WSEC 574(0A48) CRB : 398

REFERENCE INFORMATION
SECRET
11111111

Sale

888



CASE 1

DATE 10/27/87

528 33

DATA
~~DIS~~
-14.27
-13.77

132

DATA\$

88

NOT
VI
STN

ERIC V.
BEN
ALU

1.990
.000
.200

566
1
END

CH
EVTR
DEBK

1173
1174
1175

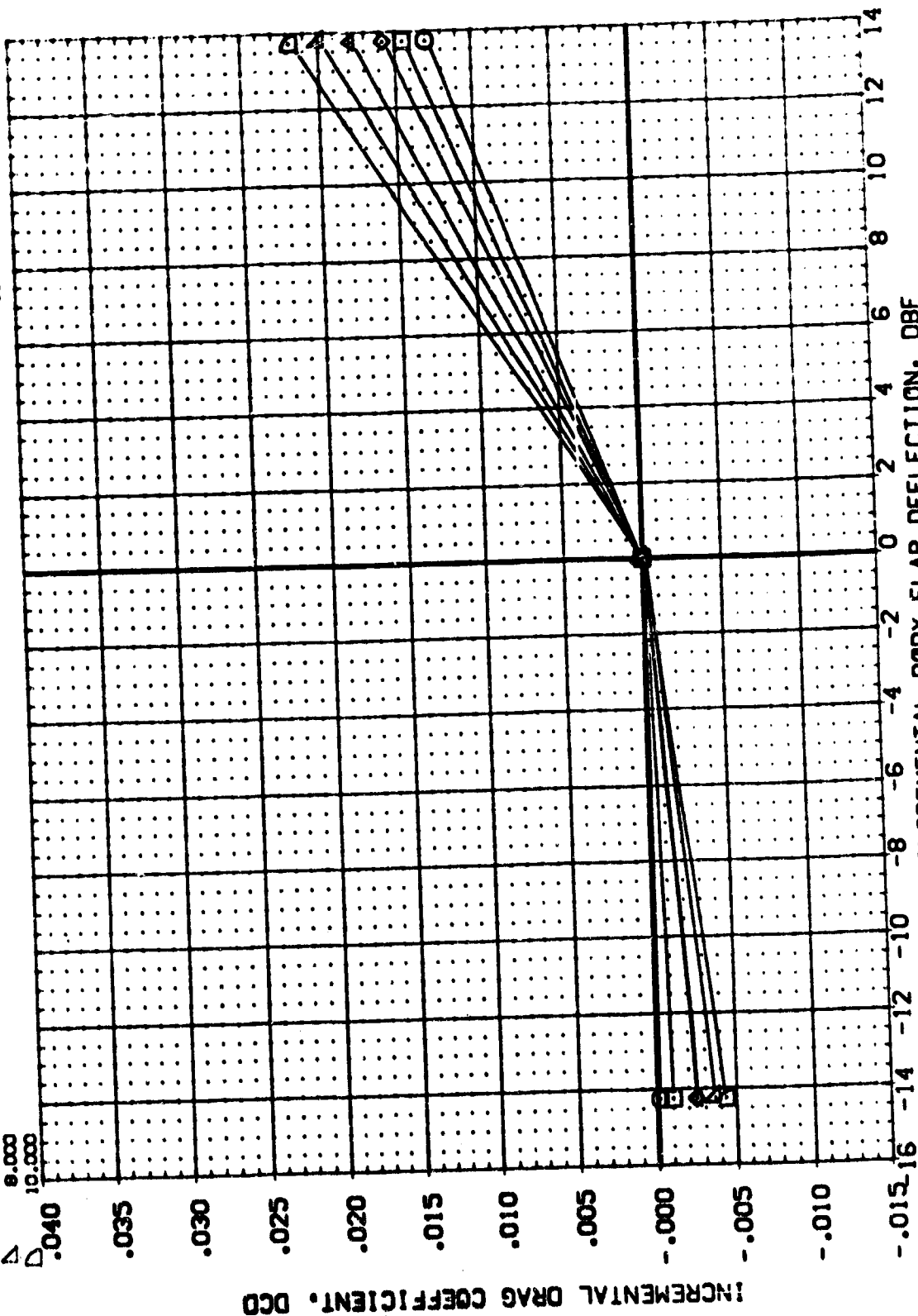
PA 000000

AL 246

08-100

5

1000



INCREMENTAL BODY FLAP DEFLECTION. DBF

FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

MSFC 574(0A48) ORB 139B

11/07/71

SUBC

ALPHA
12.000
14.000
16.000
18.000
20.000

MACH
ELEVTR
SPDRY

PARAMETRIC VALUES
1.200 BETA
.000 AILRON
999.99C

.000 DATASET
.000 L87024
.000 L87027

DATA SOURCE
DBF
-14.750
13.750

DATASET DBF

SRF
REF
REF
REF
REF
REF
SCALE

REFERENCE INFORMATION
7690.0000
474.0000
936.7500
838.7500
5000.0000
7400.0000
5040

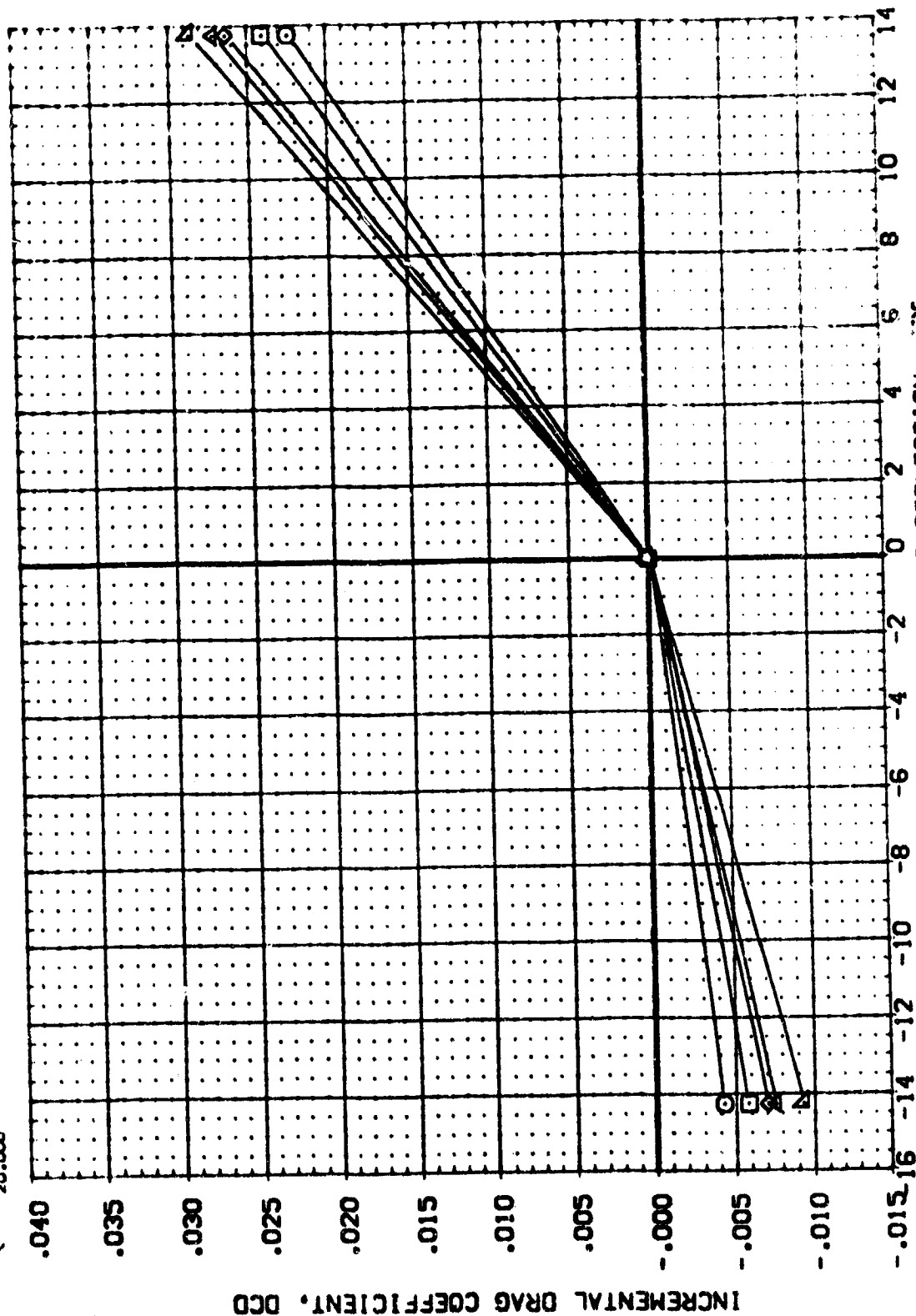


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

ms: 574(CA48); CR3 : 393

REFERENCE IN 67-101

[illegible]

DATA SOURCE		DATE		TIME	
DB	14.25C	DATE	08	TIME	00C
	13.75C				

DATA SET

PARAMETRIC VALUES

1.960	BETA
.000	ALPHA
999.990	

WACH
ELIOT
CONSUM

ALPHA	SMOGL
1.000	0.000
2.000	0.000
4.000	0.000
6.000	0.000
8.000	0.000
10.000	0.000

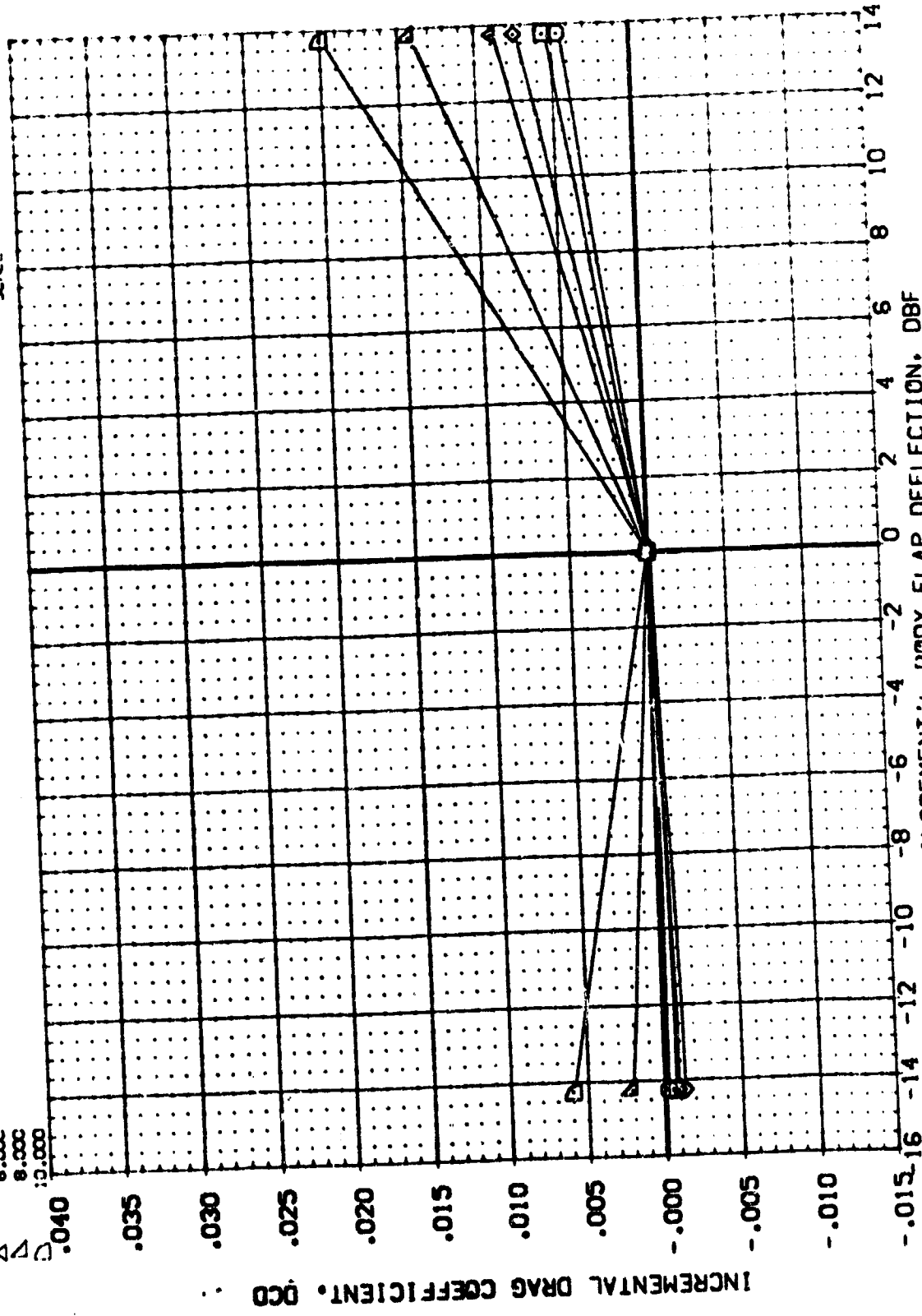
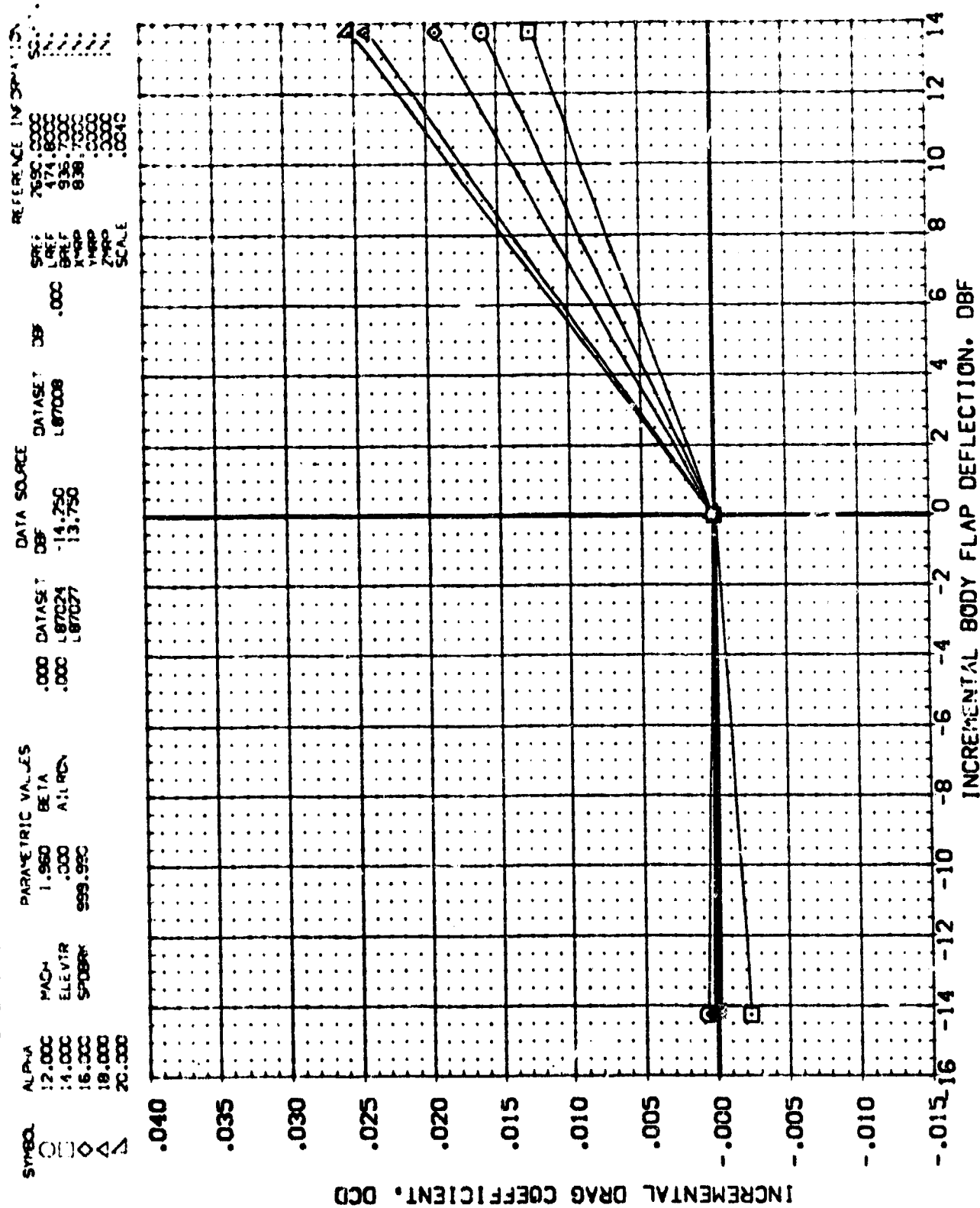


FIG. 33
INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

VS-C 574(CA48) CRB : 39B

CU87C74:



(L87024)

MSFC 574(0A48) ORB 139B

SYNCD ALPHA
.000
2.000
4.000
6.000
8.000
10.000

PARAMETRIC VALUES
MACH 2.990
ELEVTR .000
SPDRBK 999.990

DATA SOURCE
DBF
-14.750
13.750

DATASET
.000
L87024
L87027

DATASET
DBF
L87008

REFERENCE INFORMATION
SREF 2690.0000
LREF 474.8000
BREF 936.7500
XREF 838.7000
YREF .0000
ZREF .0000
SCALE .0040

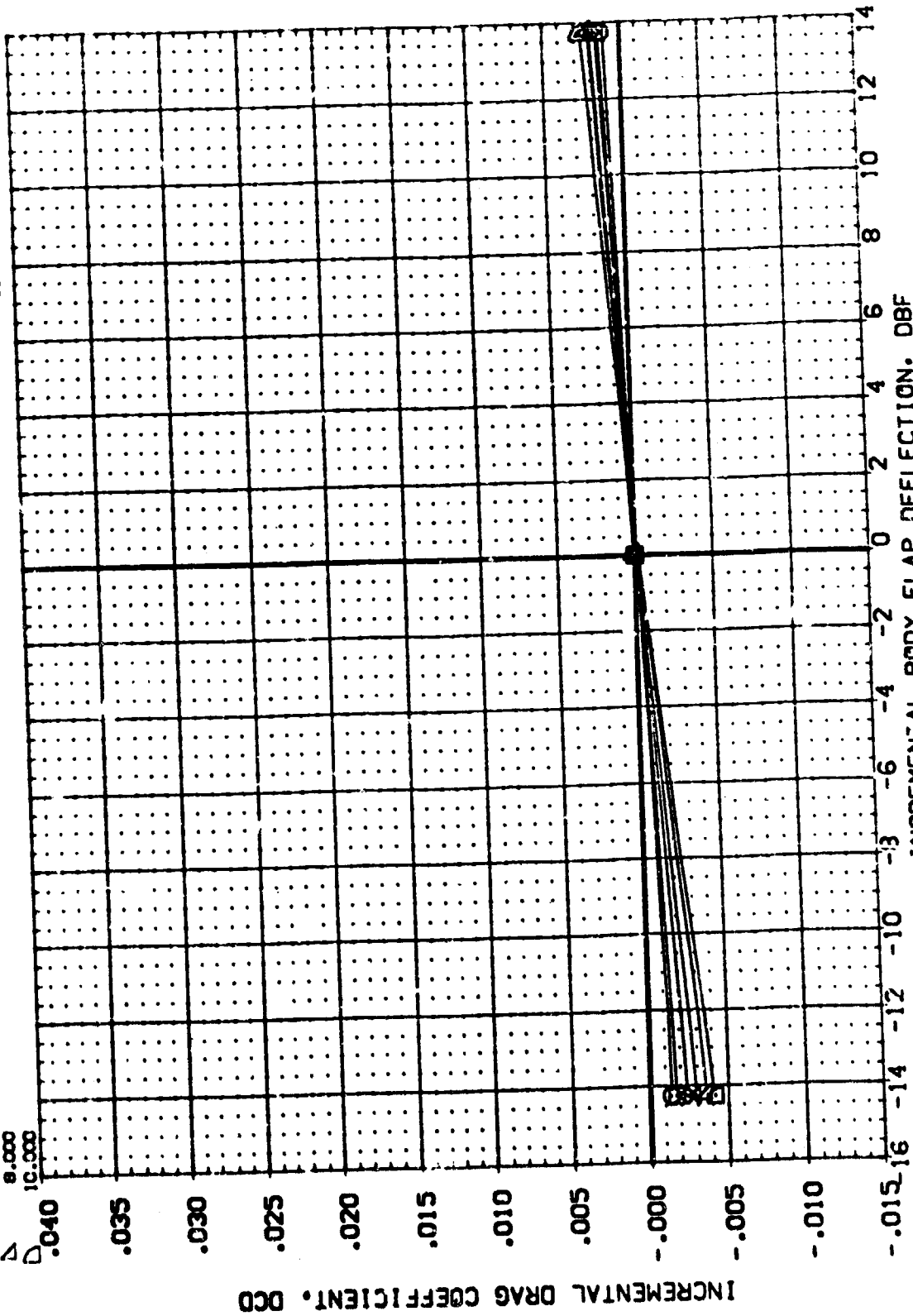


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	12.000	MACH 2.99C	.000 DATASET DBF	REF 2690.0000
I	14.000	ELEVTR .000 BETA	.000 L87024	REF 474.8000
D	16.000	SPOBRK \$99.990 AIRLEN	.000 L87027	REF 936.7000
A	18.000			XMRP 838.7000
Z	20.000			VHRS .0000
				ZVRS .0000
				SCALE .004C

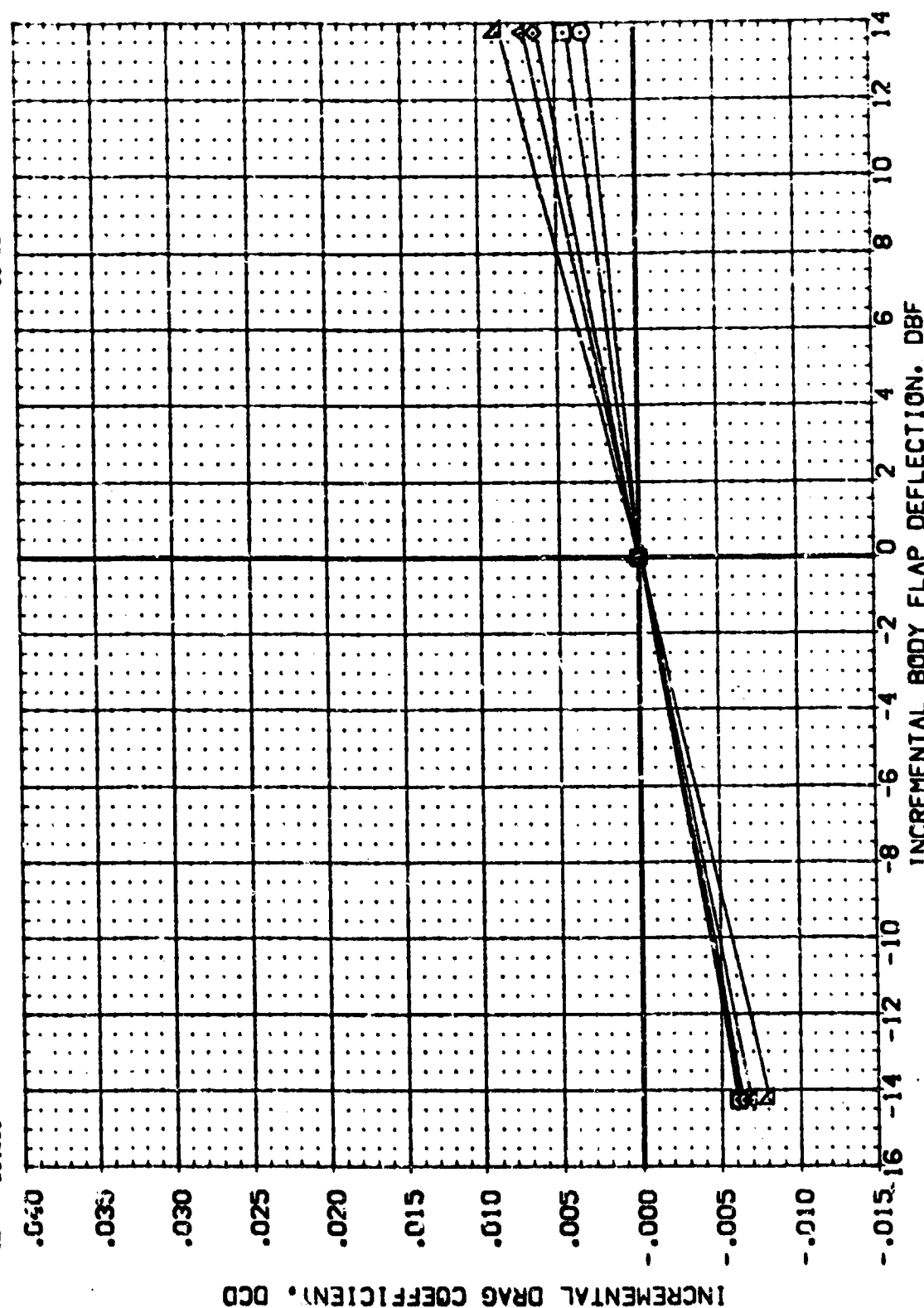


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

(L87024)

VSFC 574(CA48) ORB 139B

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	PACH	DATA SET	DBF	SREF	SCALE
.000	4.950	.000	.000	2690.0000	.0000
2.000	ELEVTR	.000	.000	474.8000	.0000
4.000	SPDRM	.000	.000	936.7000	.0000
6.000		.000	.000	838.0000	.0000
8.000		.000	.000	0.0000	.0000
10.000		.000	.000	0.0000	.0000

DATA SOURCE DBF -14.250
13.750

REFERENCE INFORMATION SCALE

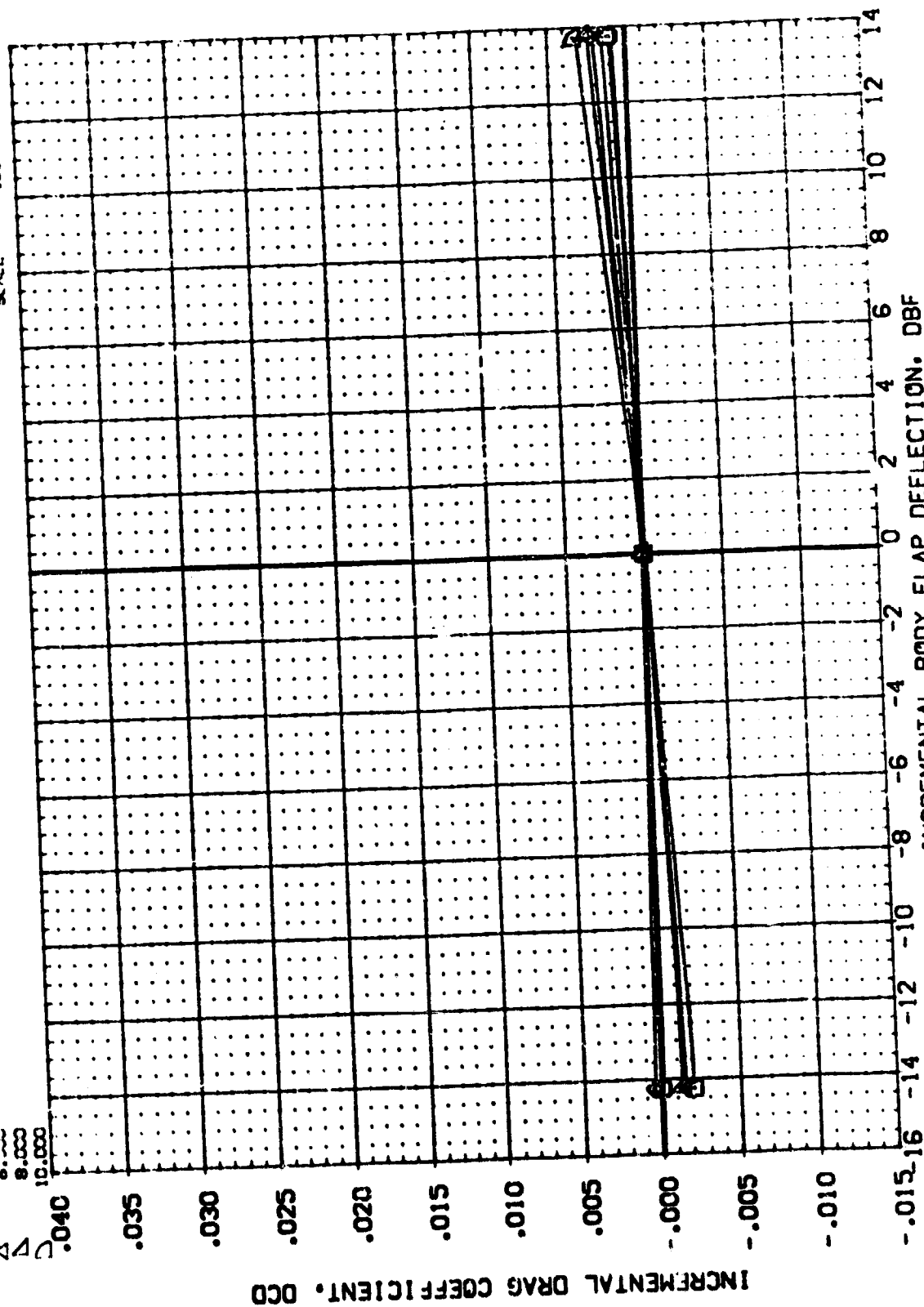


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

REFERENCE: 16-00000-100
2690.0000
474.8000
936.7000
838.7000
0000
0000
0000
0000

5746

SYMBOL	ALPHA	MAC	PARA-METRIC VALUES	DATA SET	DATA SET	DB	SREF
001	12.000	4.960	BETA	.000	187024	.000	2690.000
002	14.000	ELEVTR	ALLREN	.000	187024	.000	474.8000
003	16.000	SPOBRK	999.990	.000	187027	.000	936.7000
004	18.000			.000		.000	838.7000
005				.000		.000	0.0000
006				.000		.000	0.0000
007				.000		.000	0.0000
008				.000		.000	0.0000
009				.000		.000	0.0000
010				.000		.000	0.0000
011				.000		.000	0.0000
012				.000		.000	0.0000
013				.000		.000	0.0000
014				.000		.000	0.0000
015				.000		.000	0.0000
016				.000		.000	0.0000
017				.000		.000	0.0000
018				.000		.000	0.0000
019				.000		.000	0.0000
020				.000		.000	0.0000
021				.000		.000	0.0000
022				.000		.000	0.0000
023				.000		.000	0.0000
024				.000		.000	0.0000
025				.000		.000	0.0000
026				.000		.000	0.0000
027				.000		.000	0.0000
028				.000		.000	0.0000
029				.000		.000	0.0000
030				.000		.000	0.0000
031				.000		.000	0.0000
032				.000		.000	0.0000
033				.000		.000	0.0000
034				.000		.000	0.0000
035				.000		.000	0.0000
036				.000		.000	0.0000
037				.000		.000	0.0000
038				.000		.000	0.0000
039				.000		.000	0.0000
040				.000		.000	0.0000
041				.000		.000	0.0000
042				.000		.000	0.0000
043				.000		.000	0.0000
044				.000		.000	0.0000
045				.000		.000	0.0000
046				.000		.000	0.0000
047				.000		.000	0.0000
048				.000		.000	0.0000
049				.000		.000	0.0000
050				.000		.000	0.0000
051				.000		.000	0.0000
052				.000		.000	0.0000
053				.000		.000	0.0000
054				.000		.000	0.0000
055				.000		.000	0.0000
056				.000		.000	0.0000
057				.000		.000	0.0000
058				.000		.000	0.0000
059				.000		.000	0.0000
060				.00			

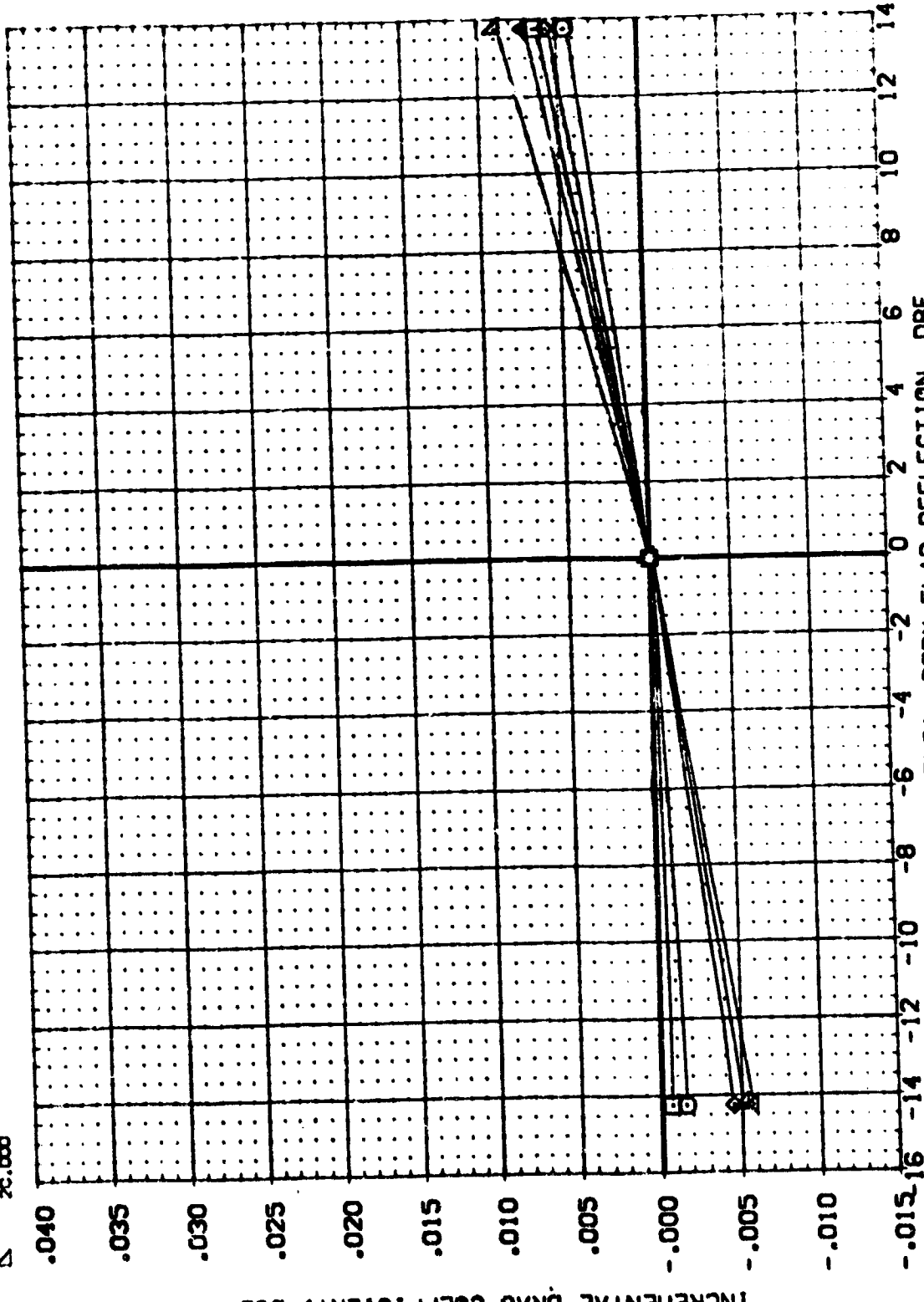


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

VSFC 574(3A48) CR3 1398

(187025)

REFERENCE INFORMATION
 SREF 2690.0000
 LREF 474.8000
 BREF 936.7000
 XREF 838.7000
 YREF .0000
 ZREF .0000
 SCALE .0010

DATA SOURCE
 DBF -14.250
 13.750

DATASET
 .000 187025
 .000 187028

PARAMETRIC VALUES
 BETA 2.990
 AILRON .000
 999.990

MACH
 ELEVTR
 SPDRK

ALPHA
 20.000
 22.000
 24.000
 26.000
 28.000
 30.000

SYMC
 0.000
 0.000
 0.000
 0.000
 0.000
 0.000

INCREMENTAL DRAG COEFFICIENT, DCD

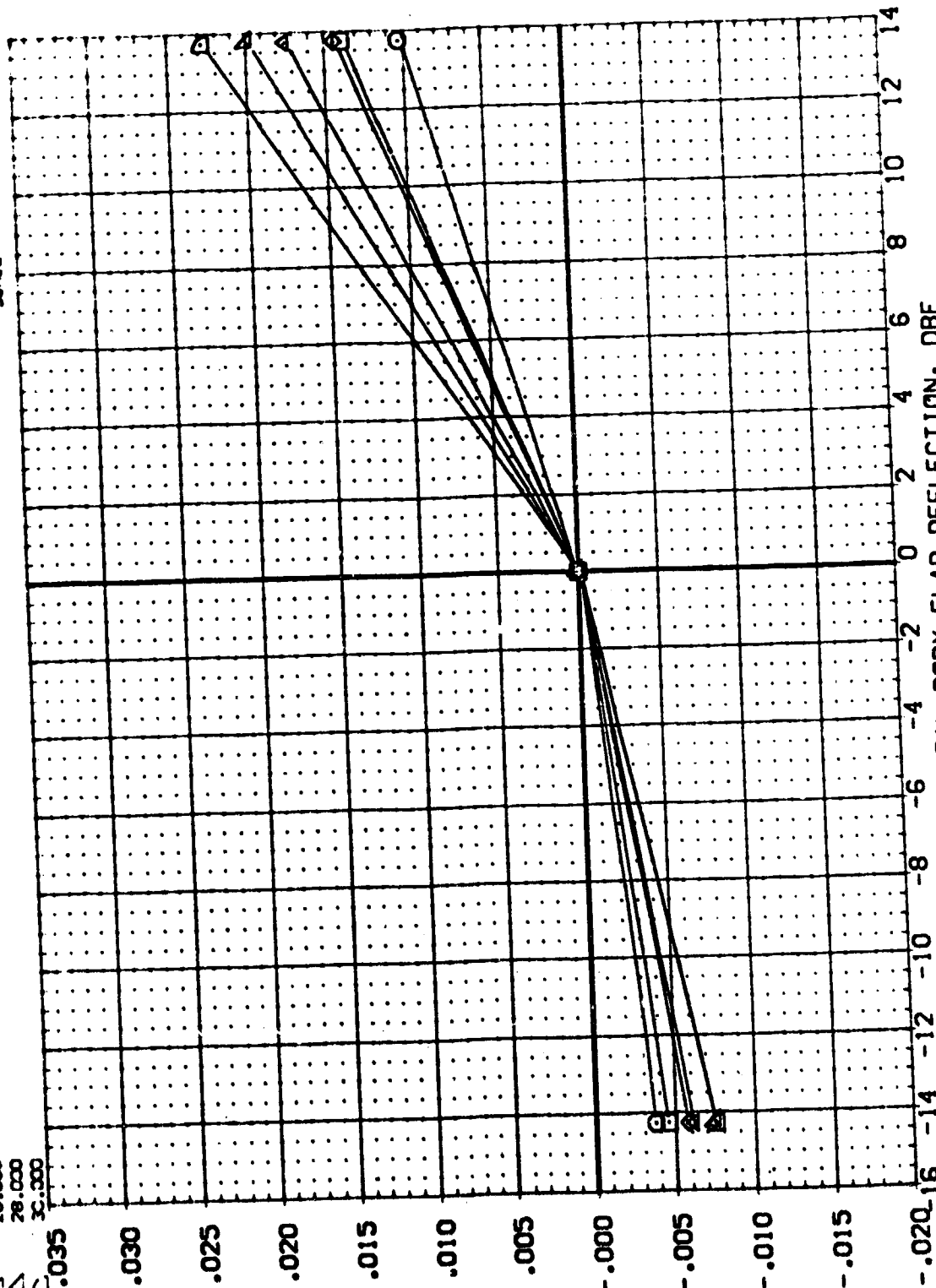


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 1398

(L87025)

MSFC 574(0A48) CRB 139B

REFERENCE INFORMATION
 SREF 269C.0000
 LREF 474.6000
 BREF 936.7000
 XREF 838.7000
 YREF .0000
 ZREF .0000
 SCALE .004C

DATA SOURCE

DATASET DBF
 L87025
 L87028

PARAMETRIC VALUES
 BETA
 AILRON

MACH
 ELEVTR
 SPOBRK

ALPHA
 20.000
 22.000
 24.000
 26.000
 28.000
 30.000

SYMBOL
 4
 2
 1

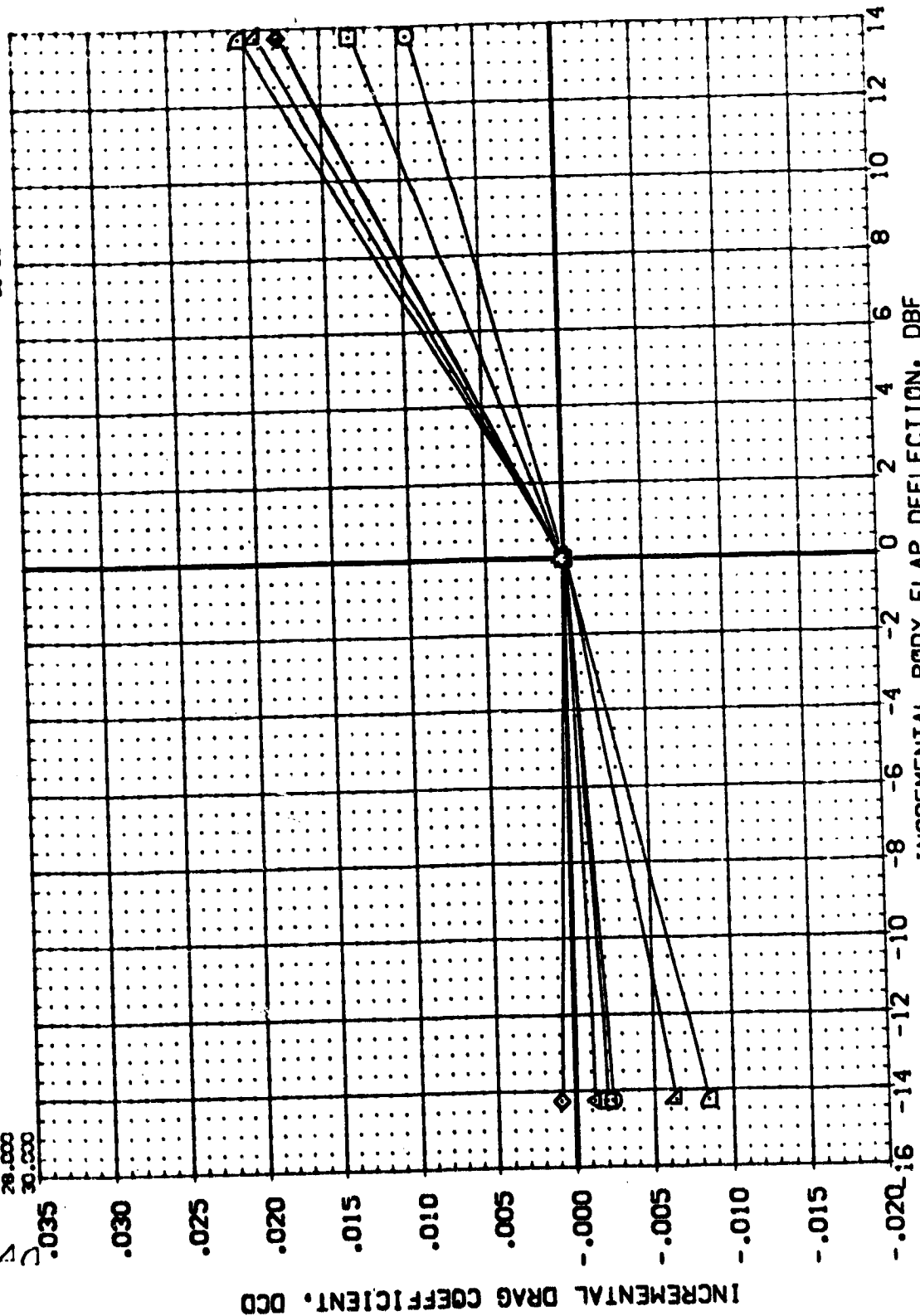


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

VSFC 574(CA48) ORB 139B

(L87025)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
0.00	32.000	4.960	BETA	.000	DBF	DBF	SREF	2690.0000
0.00	34.000	0.000	AIRTON	.000	DBF	DBF	LINE	474.8000
0.00	36.000	999.990	SPDRM	.000	DBF	DBF	SCALE	936.7000
0.00	38.000				DBF	DBF	SCALE	836.7000
0.00	40.000				DBF	DBF	SCALE	.0000
					DBF	DBF	SCALE	.0000
					DBF	DBF	SCALE	.0000

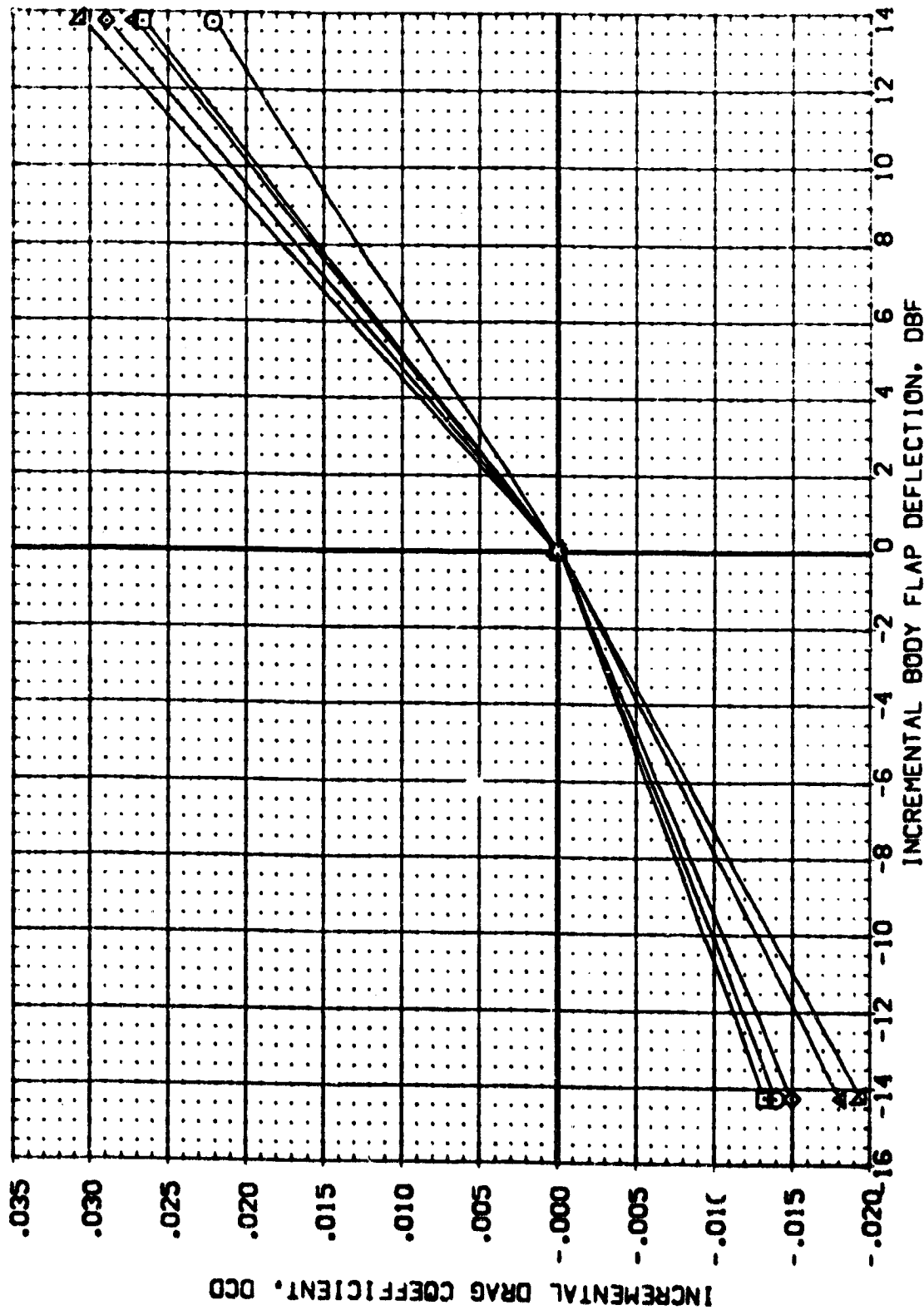


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

MSFC 574(0A48) ORB 139B (187026)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATA SET	DBF	REFERENCE INFORMATION
□	40.000	ELEVTR	4.960 BETA	DBF	18703C	.000	SREF 269C.0000
◇	42.000	SPDRK	.000 AILRON	DBF	187026	.000	LREF 47A.8000
△	44.000		999.99C	DBF	187029	.000	SREF 936.7000
▽	46.000			DBF		.000	XREF 836.7000
○	48.000			DBF		.000	YREF .0000
●	50.000			DBF		.000	ZREF .0000
				DBF		.000	SCALE .0010

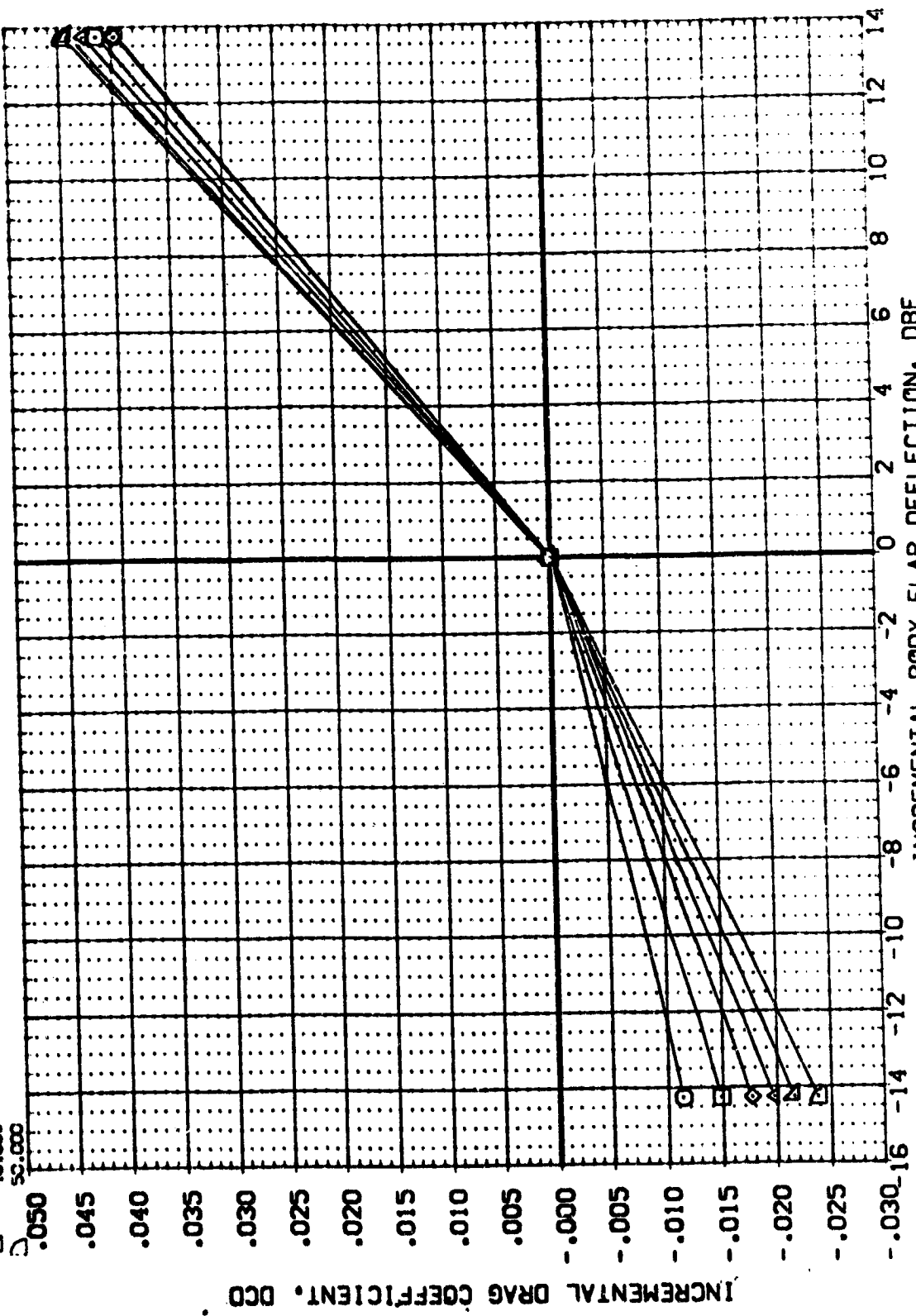


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

(L87026)

MSFC 574(0A48) GRB 139B

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
○	52.000	ELEVTR	4.950	BETA	.000	DBF	SREF	2690.0000
□	54.000	SPDRK	.000	AILRON	.000	DBF	LREF	474.8000
◇	56.000		999.990		L87026	DBF	BREF	936.7000
△	58.000				L87029	DBF	XREF	838.7000
	60.000					DBF	YREF	.0000
						DBF	ZREF	.0000
						DBF	SCALE	.0040

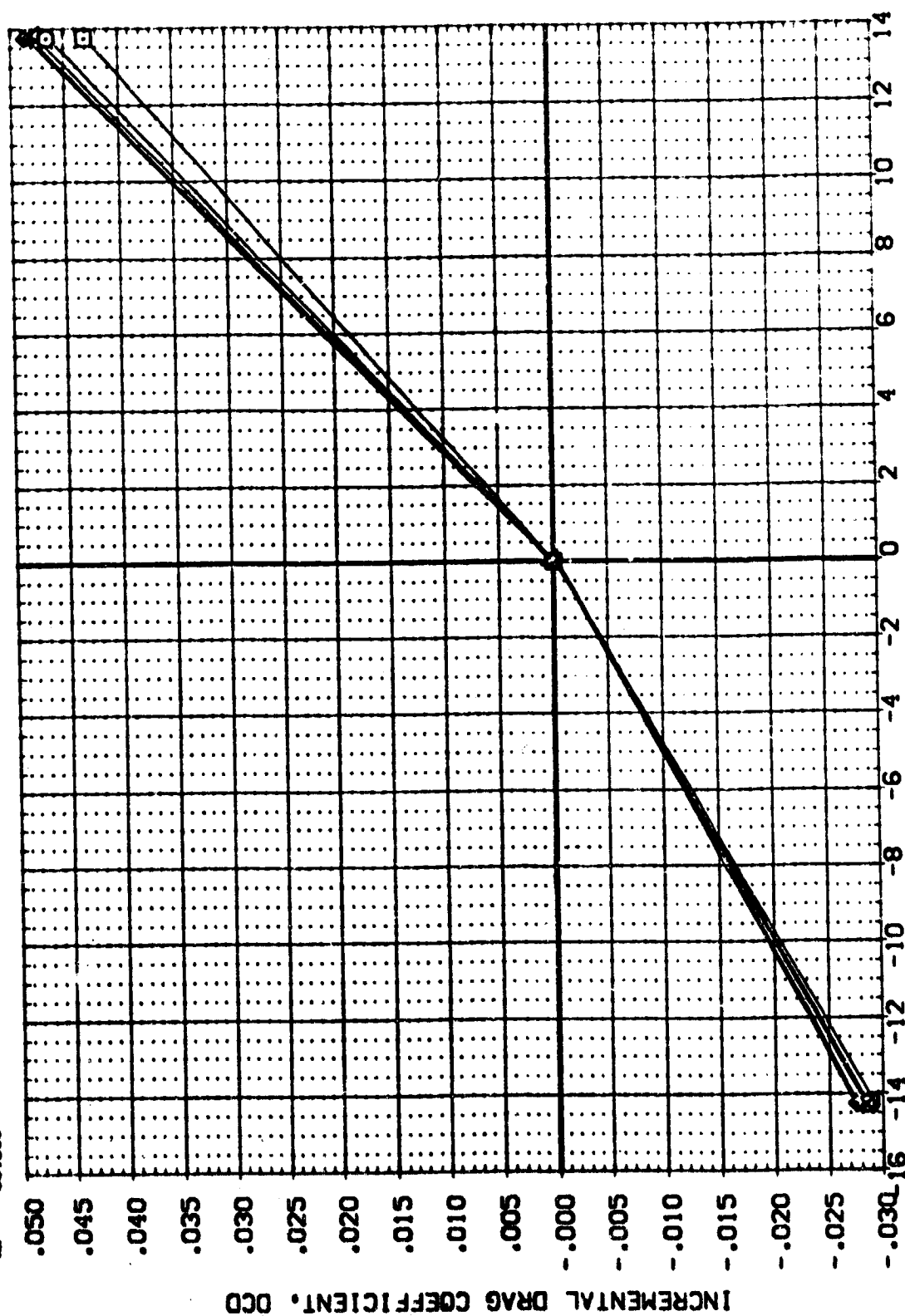


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

MSFC 574(0A48) ORB 139B

(L87024)

REFERENCE INFORMATION
SQ.FT.
Z:Z:Z:Z:Z:
2690.0000
474.8000
936.7000
838.7000
0.0000
0.0000
0.0000
0.0040

DATA SOURCE
DBF
-14.250
13.750
DATASET
L87008
DBF
.000

.000 DATASET
L87024
L87027

PARAMETRIC VALUES
BETA
ATLRN
999.990

MACH
ELEVTR
SPDRK

ALPHA
.000
2.000
4.000
6.000
8.000
10.000

SYMBOL
0.000
0.000
0.000
0.000
0.000
0.000

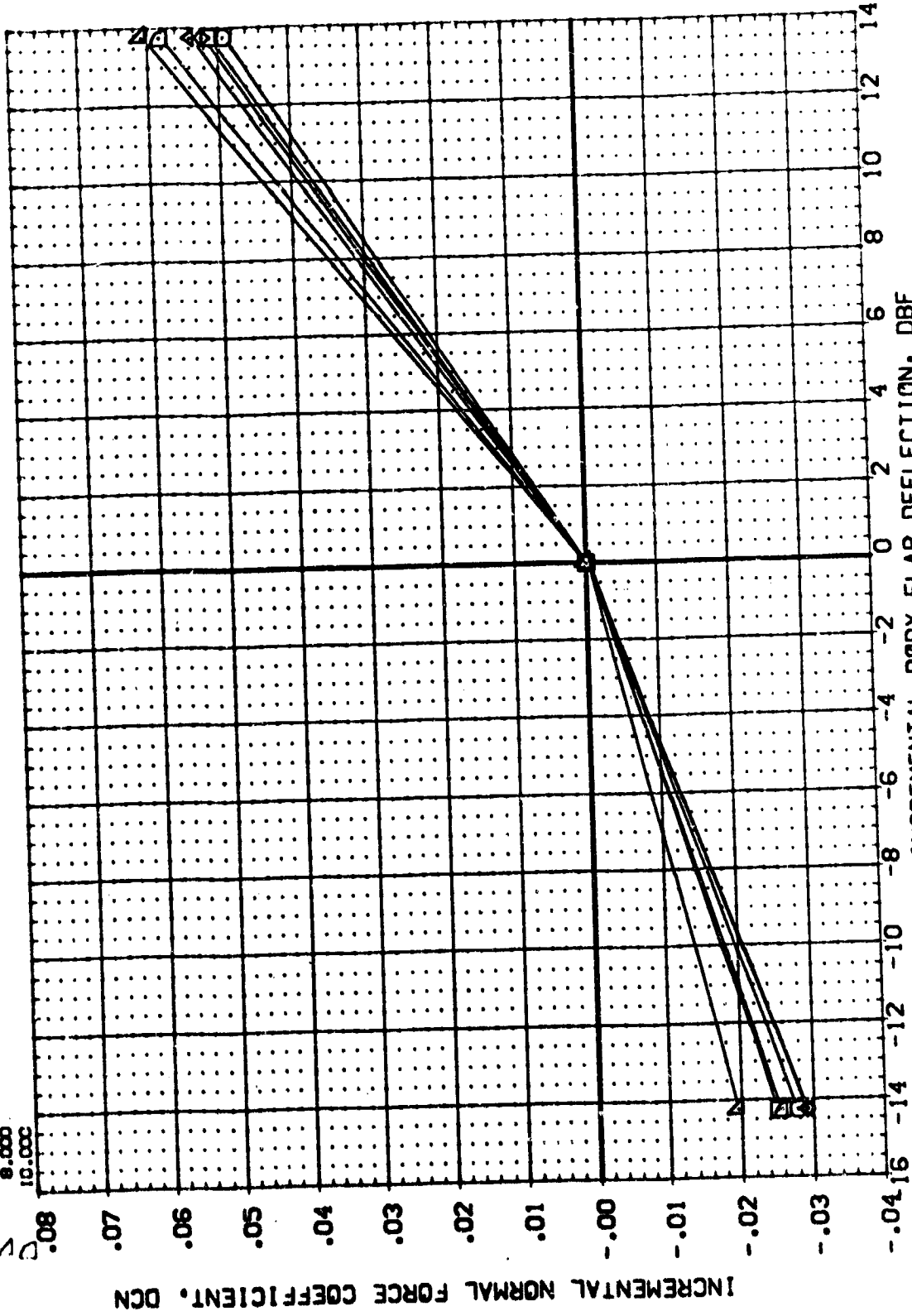


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

MS-C 574(CA48) C23 : 39:3

REFERENCE INFORMATION

DATA SOURCE	14.750	13.750
DB		

DATA SET	DATE	TIME	USER	STATUS
1.000	197024	187027		
1.000	197024	187027		

PARAMETRIC VALUES	
BETA	.900
ALPHA	.000
	.999 .990

WASH
ELEV 12
SPR 12

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2.000
4.000
6.000
8.000
10.000

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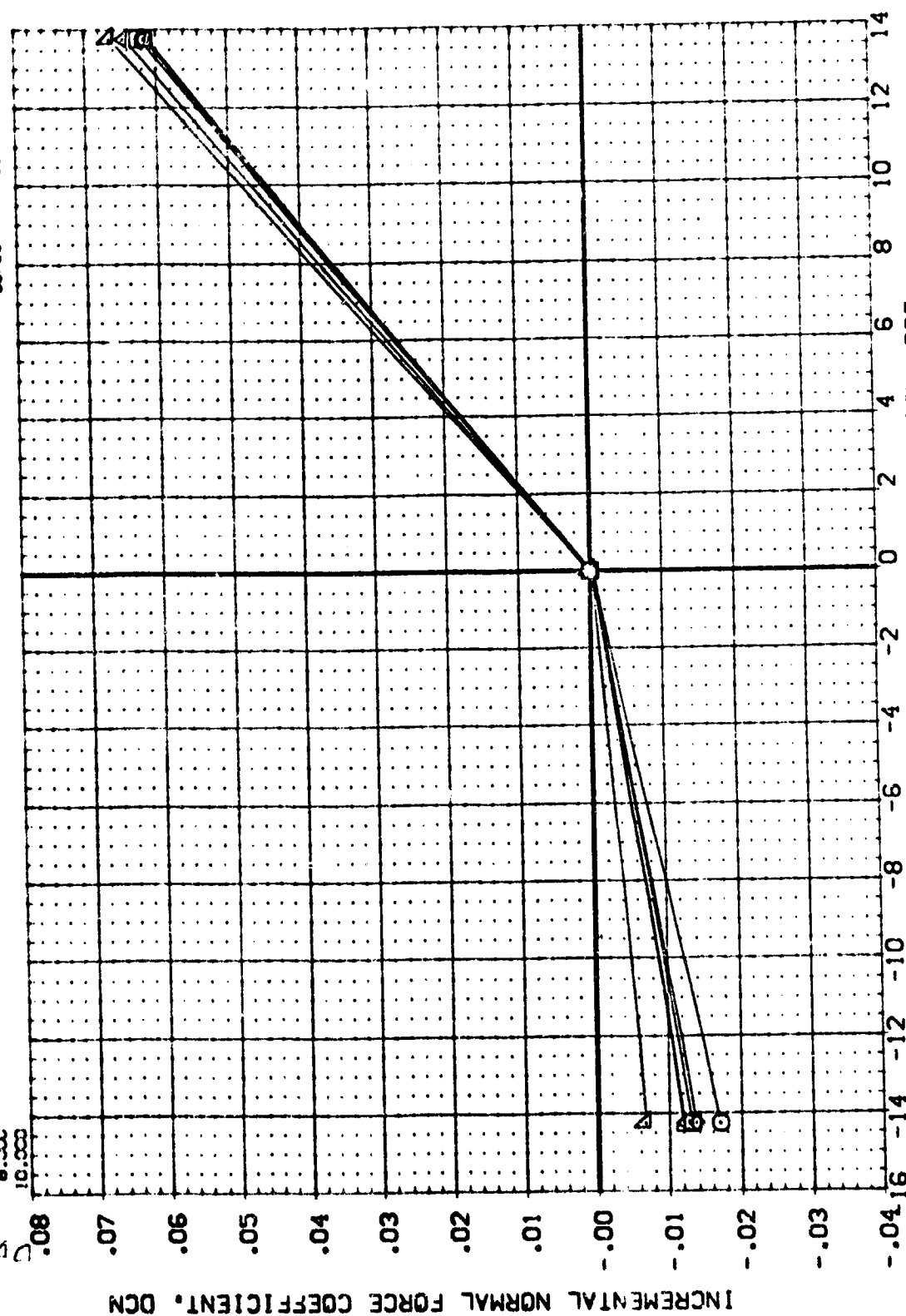


FIG. 33 INCREMENTAL BODY FLAP DEFLECTION, DBF INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

US: 574(CA48) 3R3 1393

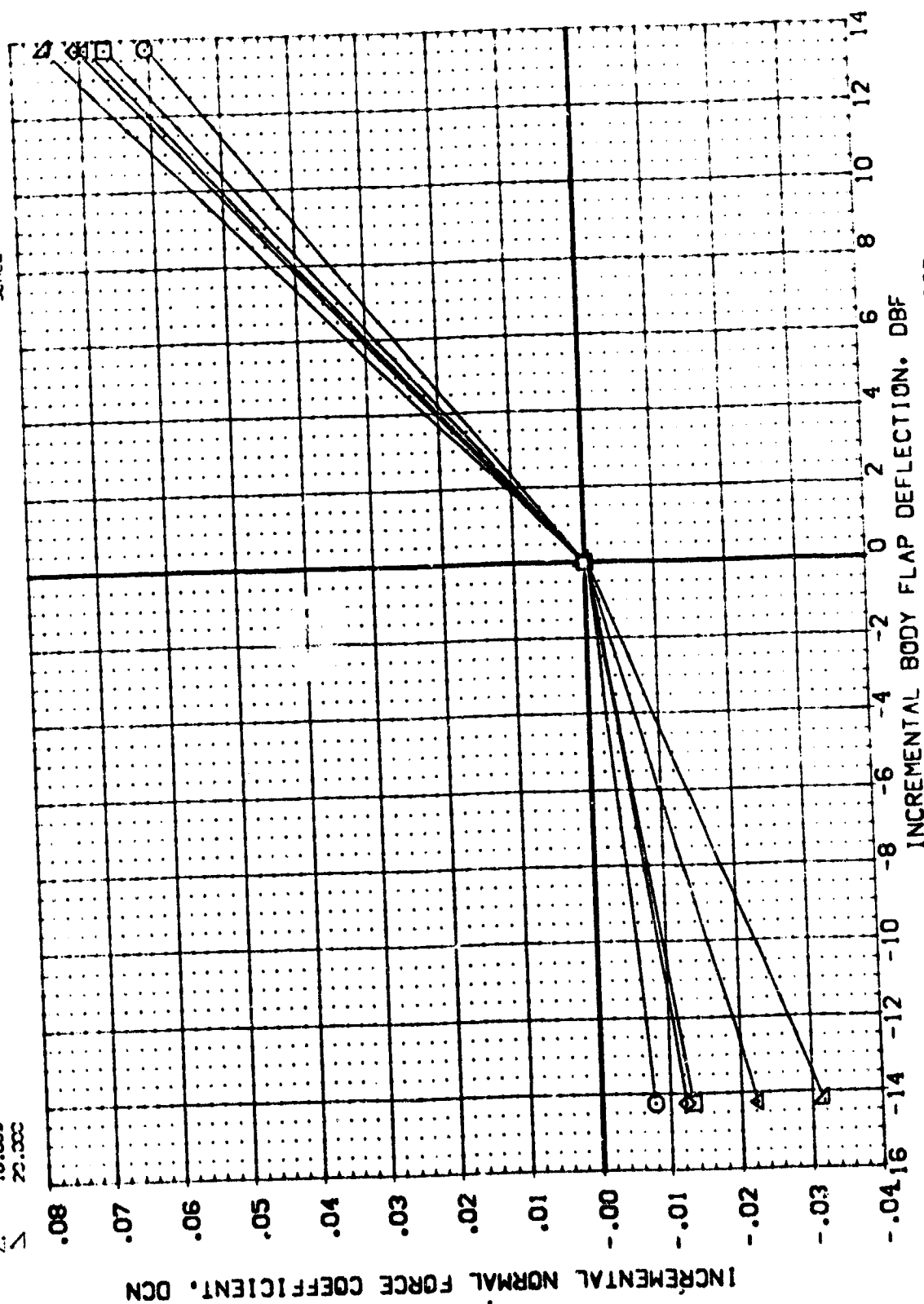
[illegible]

FIG. 33
INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

(187024)

VS-C 574(CA48) ORB 139B

REFERENCE INFORMATION
 SRI 7690.0000
 REF 474.8000
 SREF 936.7000
 M-20 838.7000
 Y-20 0.0000
 Z-20 0.0000
 SCALE 10040

DATA SOURCE

DBF
 -14.250
 13.750

PARAMETRIC VALUES

BETA
 1.200
 ALLRON
 999.95"

MACH
 2.000
 ELEVATION
 999.95"

ALPHA
 0.000
 2.000
 4.000
 6.000
 8.000
 10.000

SP-500

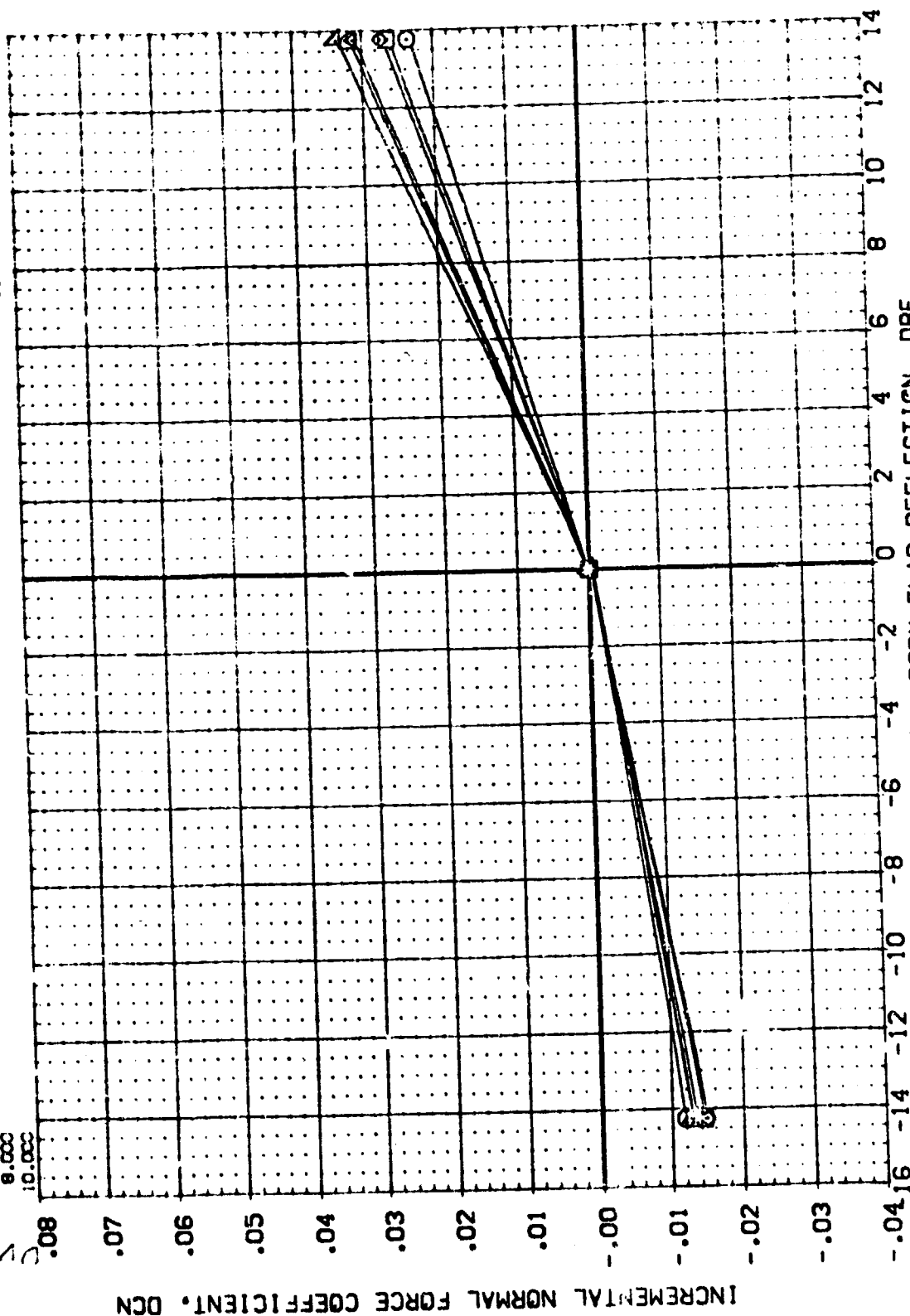


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

(18/024)

VSFC 574(0A48) CR3 1398

SYMB:
 \circ Δ \square \diamond ∇

ALPHA
 12.000
 14.000
 16.000
 18.000
 20.000

MACH
 ELEVTR
 SPDRY

PARAMETRIC VALUES
 1.200 BETA
 .000 AILERON
 999.99C

.000 DATASET
 .000 L87024
 .000 8/027

DATA SOURCE
 DBF -14.25C
 13.750

DATASET: DBF
 L87008

SAT:
 LR:
 BR:
 AMP:
 MAG:
 SCALE

REFERENCE INFORMATION
 2600.0000
 474.8000
 936.7000
 838.7000
 .0000
 .0000
 .0000
 .0000

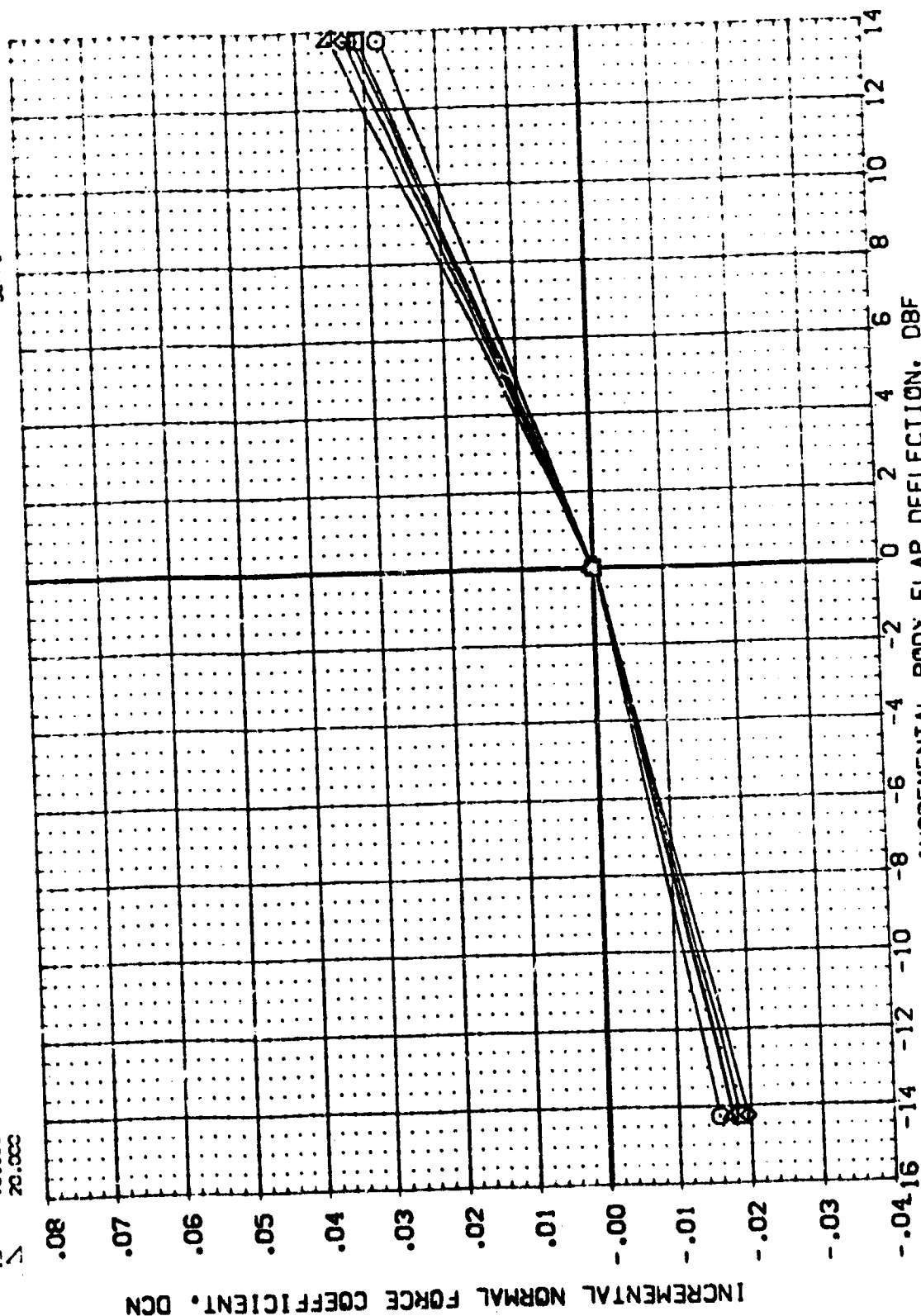


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 1398

VSFC 574(CA48) ORB 139B

(L87024)

REFERENCE INFORMATION
 SREF 2690.0000
 LRI 471.8000
 BR 1 936.7000
 XREF 838.7000
 YREF .0000
 ZREF .0000
 SCALE .0040

DATA SOURCE
 DBF -14.250
 L87008 13.750

DATASET
 L87024
 L87027

PARAMETRIC VALUES
 MACH 1.960
 ELEVTR .000
 SPDRK 999.990
 BETA
 AIRLEN

ALPHA
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 2.000
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SYMBOL
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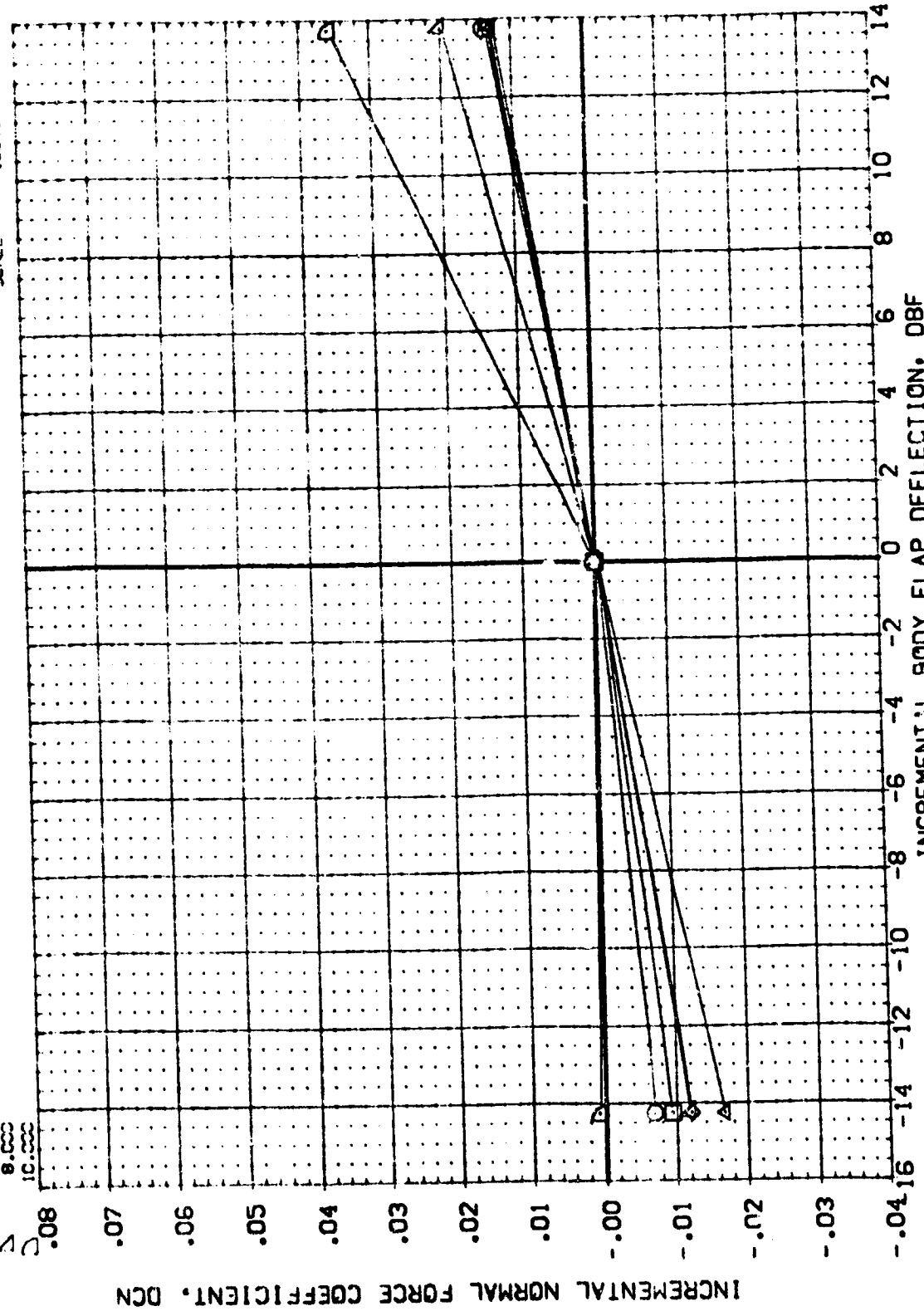


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

(187024)

MSFC 574(0A48) ORB 1393

REFERENCE IN DATA IS:
2690-0000
474-8000
936-7000
838-7000
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L 870

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U.S. DEPARTMENT OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION
WASHINGTON, D. C. 20535

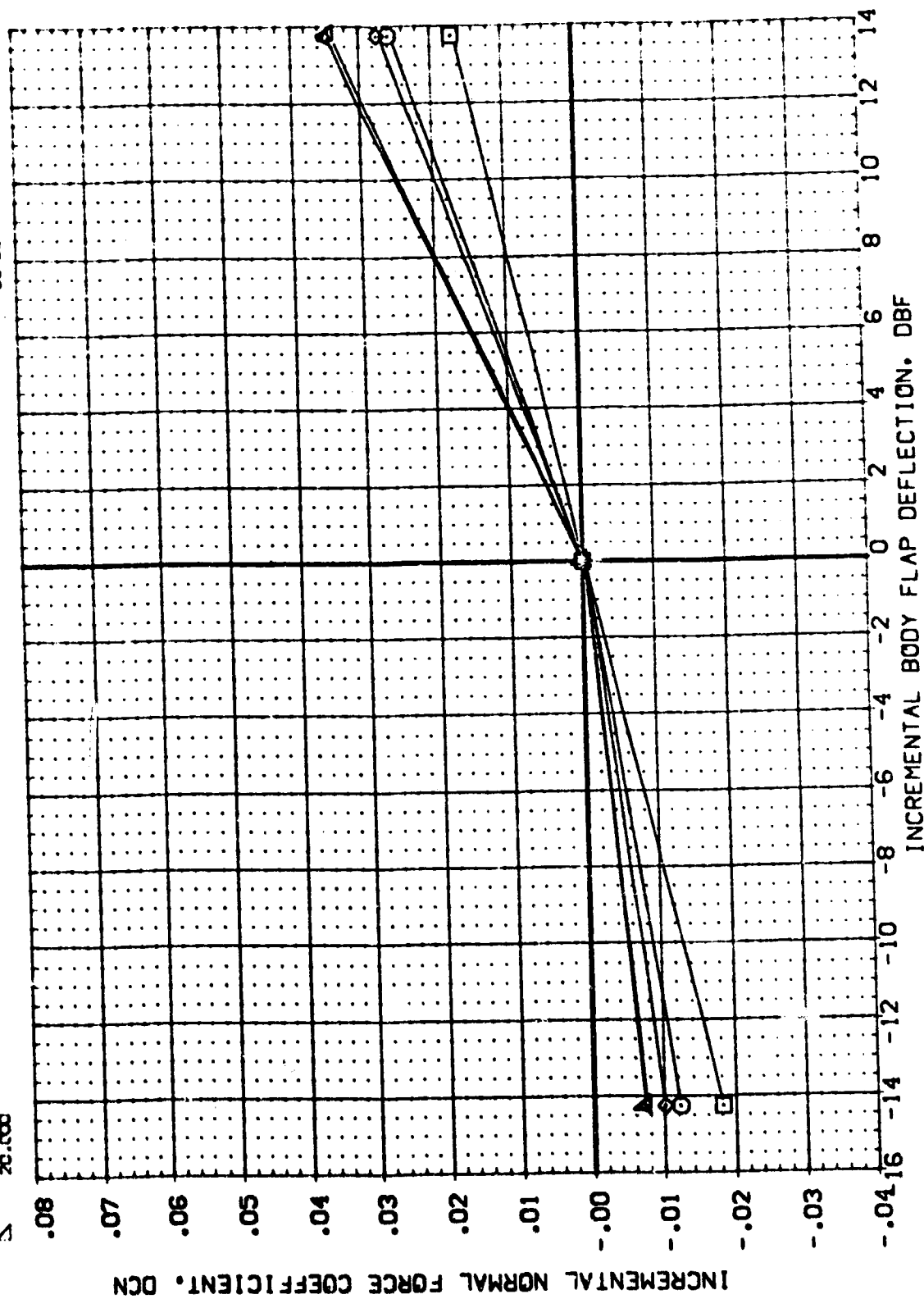
13 14

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80704

Synonyms:



INCREMENTAL BODY FLAP DEFLECTION. DBF

FIG. 33
INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

(187024)

VS: C 574(CA48) CR3 :39B

[illegible]

SA: 1
LAF: 1
BRI: 1
KING: 1
CHAM: 1
JACK: 1
SCA: 1

8

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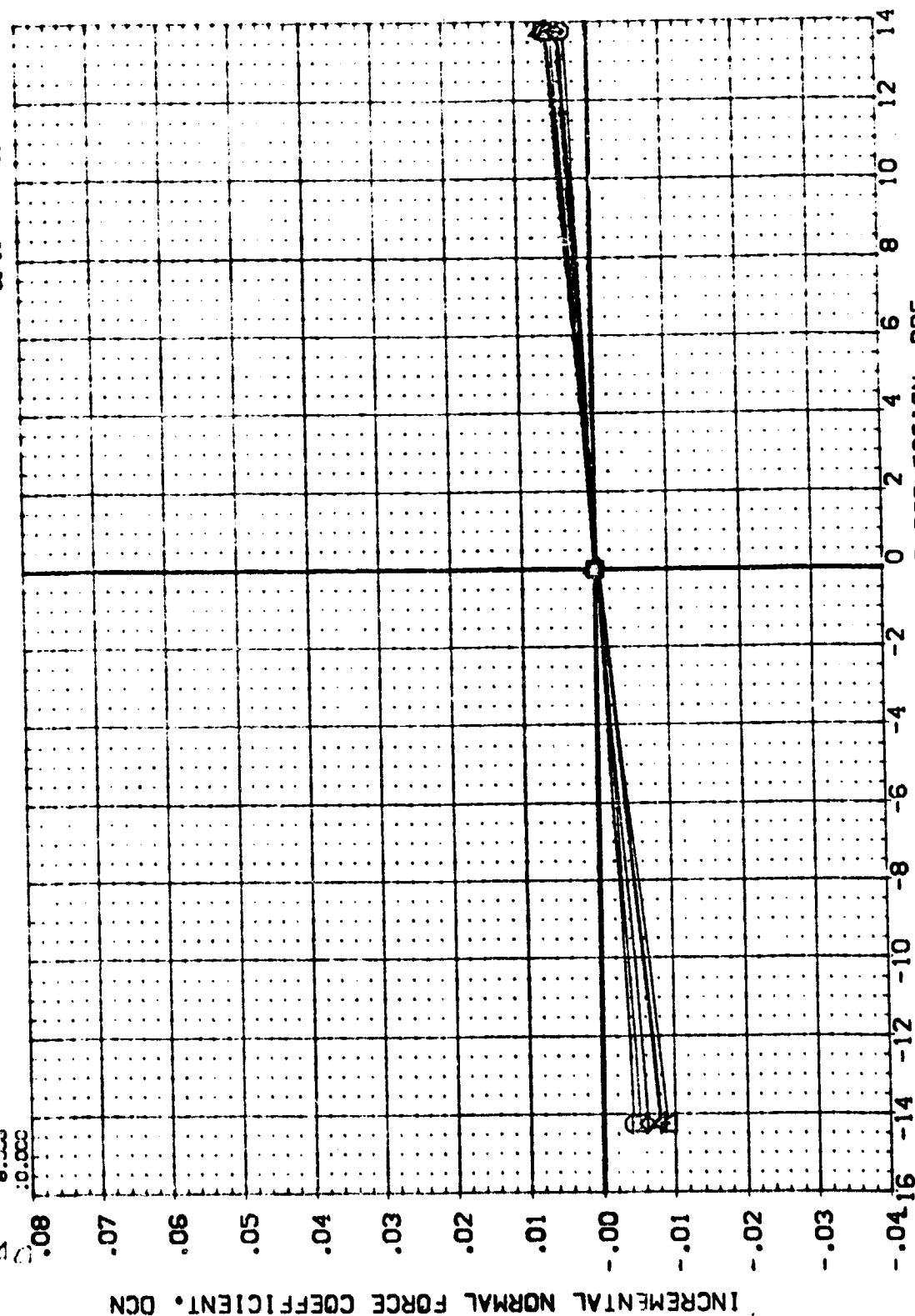
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INCREMENTAL BODY FLAP DEFLECTION. DBF

FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

870274

MSC 574(CA48) ORB 139B

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATESET	SCALE	REFERENCE INFORMATION
○	2.000	ELEVTR	2.990 BETA	DBF	87008	.000	7690.0000
◇	4.000	SPDBRY	.000 AILRON	-14.25C	87024	.000	474.8000
△	6.000		999.990	13.750	87027	.000	936.7000
	8.000					.000	838.7000
	10.000					.000	600.0000
	12.000					.000	500.0000
	14.000					.000	300.0000
	16.000					.000	200.0000
	18.000					.000	100.0000
	20.000					.000	0.0000

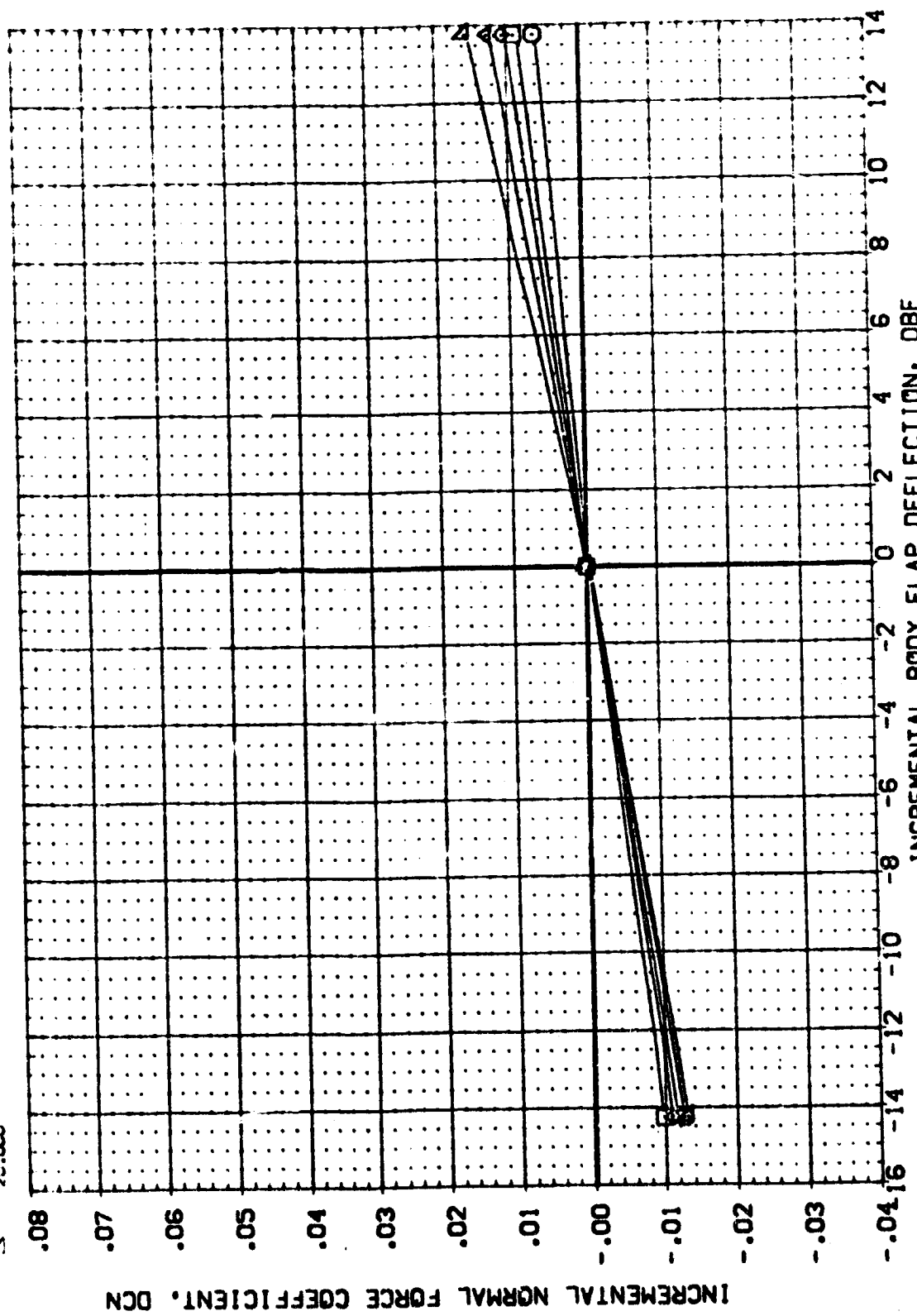


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

(L87024)

MSFC 574(0A48) ORB 139B

REFERENCE INFORMATION
 SREF 2690.0000
 LREF 474.8000
 BREF 936.7000
 YARP 838.7000
 YARP .0000
 ZARP .0000
 SCALE .0040

DATA SOURCE
 DBF -14.250
 L87024
 L87027

PARAMETRIC VALUES
 BETA .000
 ATLRN 999.990

MACH
 ELEVTR
 SPOBRK

ALPHA
 .000
 2.000
 4.000
 6.000
 8.000
 10.000

SYNCD
 0.00
 0.04
 0.08

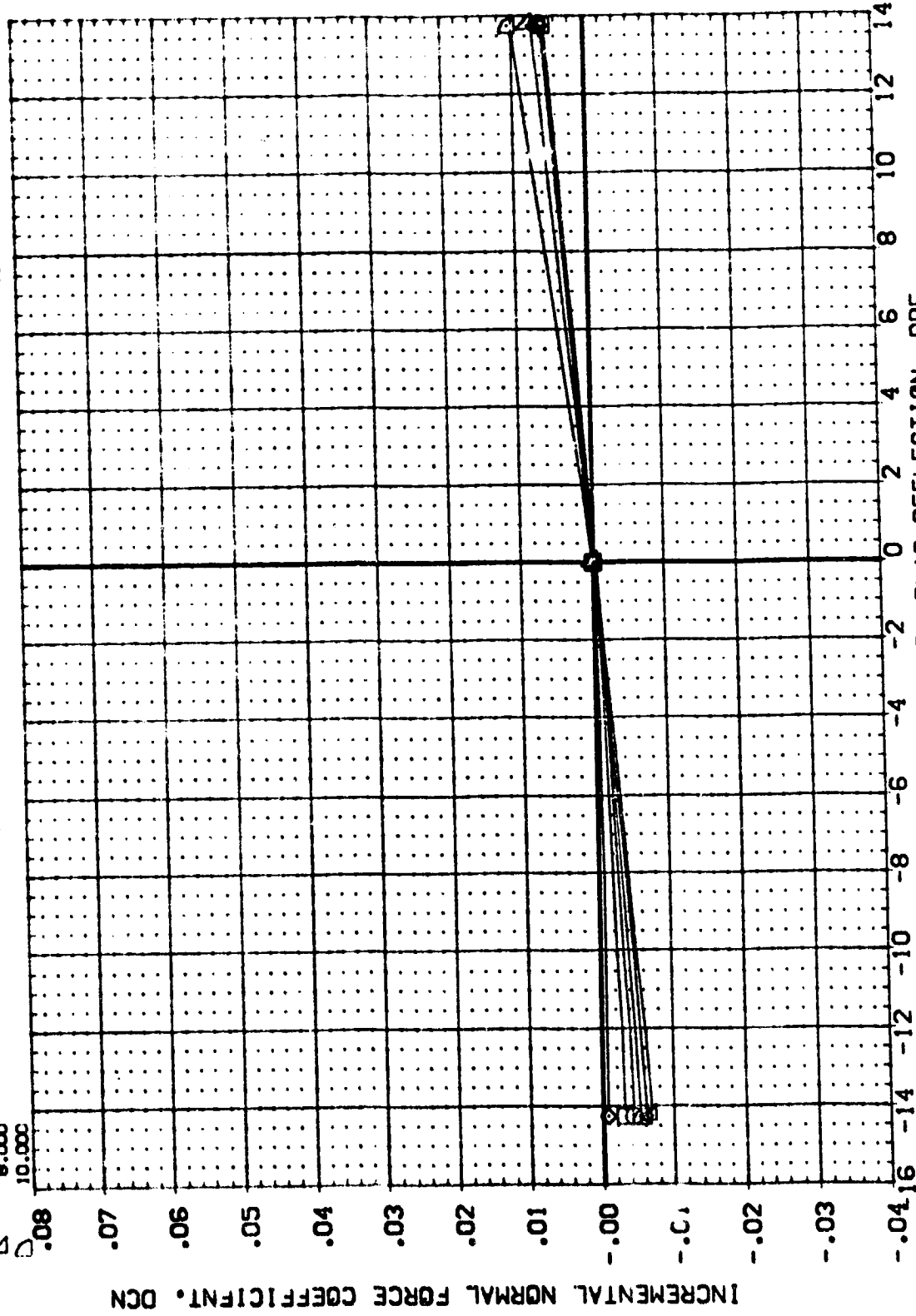


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

(L87024)

MSFC 574(0A48) ORB 139B

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	MACH	DBF	DBF	SREF	SC.F.
12.000	4.960	L87024	L87008	2690.0000	11.7777
14.000	.000	-14.250	.000	471.8000	
16.000	999.990	13.750		936.7000	
18.000				838.7000	
20.000				.0000	
				ZMRD	
				SCALE	
				.0010	

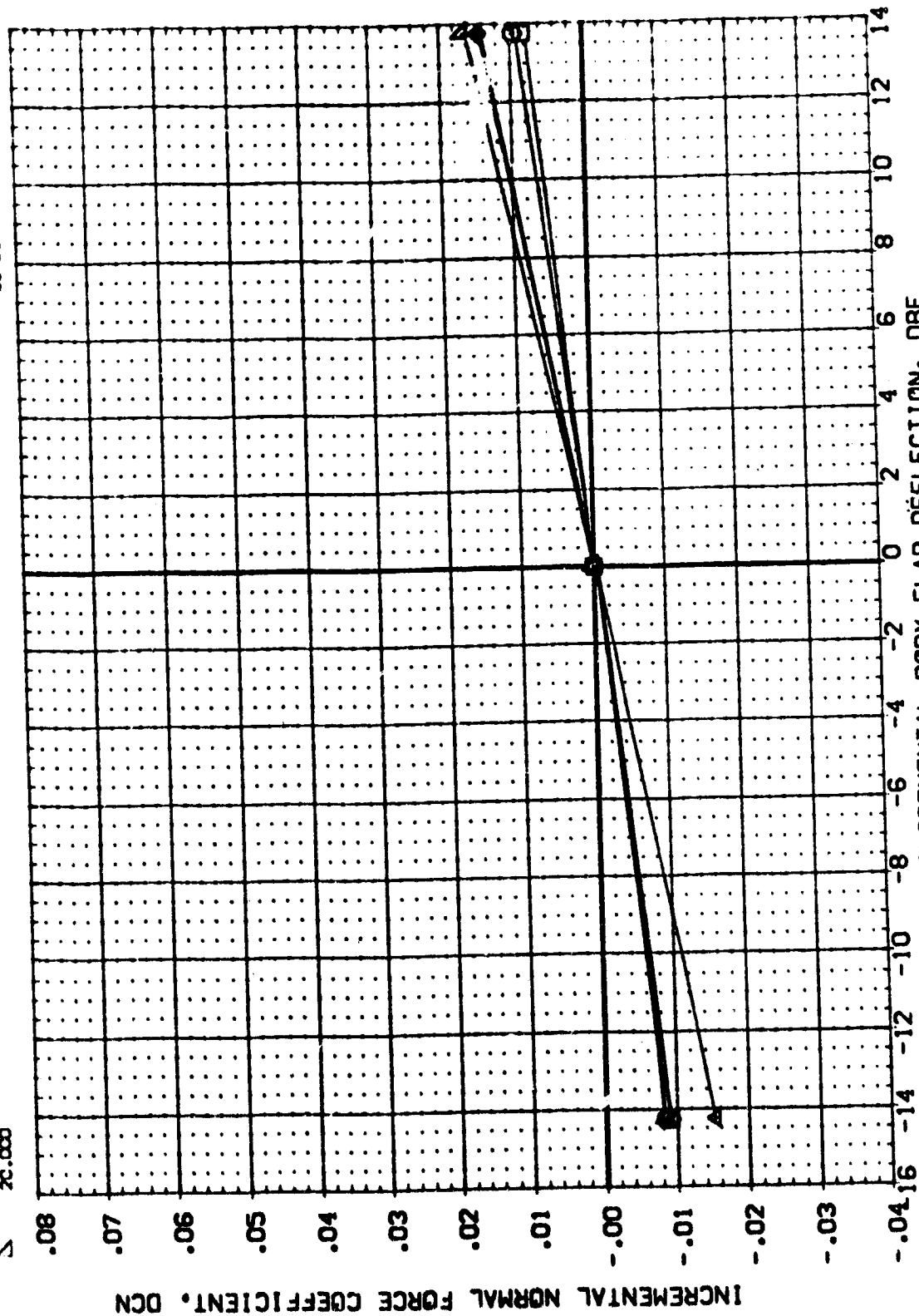


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

REF 574(CA48) CRB 139B

REFERENCE INFORMATION

2690 0000
474 8000
936 7000
838 7000
0000
0000
0040

SECRET

```

      DATASET 1      DSF      .000
      L87009
      SREF
      LREF
      BRFF
      XMR0
      YMR0
      ZMR0
      SCALE

```

DATA SOURCE	DBF	-14.250	:3.750
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000 DATASET
000 L87025
000 L87028

VALUES
BETA
AILRON

PARAMETRIC
2.99C
.300
999.99C

574(CA
MACH
ELEVTR
SPCERK

ALPHA
20.000
22.000
24.000
26.000

SYMBOL

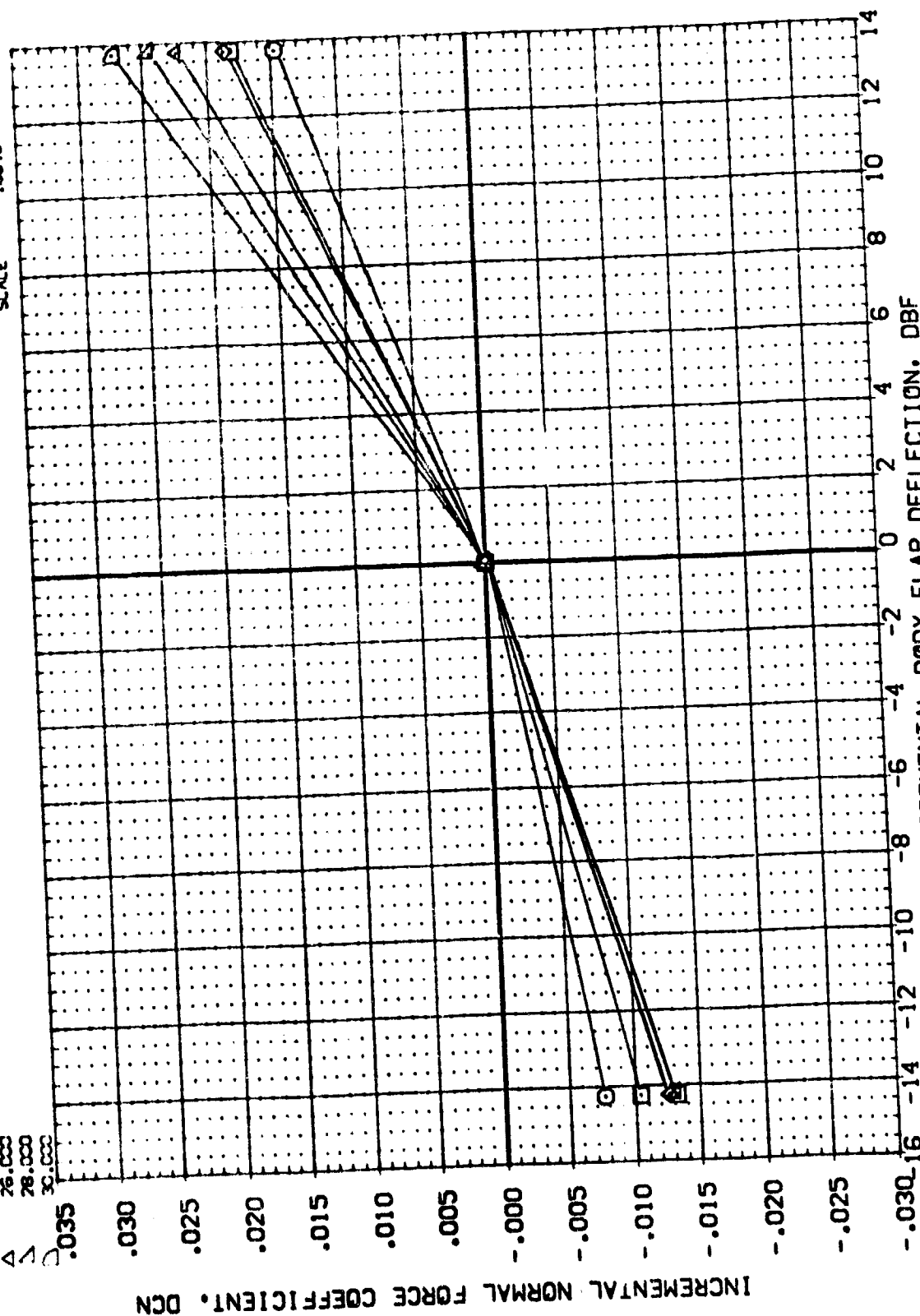


FIG. 33
INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

MSFC 574(0A48) ORB 139B

(L87025)

SYMBOL	ALPHA	MACH	ELEVTR	SPDRK	999.990	PARAMETRIC VALUES	.000	DATASET	DBF	-14.250	13.750	DATA SOURCE	DBF	.000	DATASET	DBF	.000	SRF	LREF	BRF	XREF	YREF	ZREF	SCALE
○	32.000					BETA		L87025							L87009			2690.0000	474.8000	936.7000	838.7000	.0000	.0000	.0010
◇	34.000					AILRON		L87028																
△	36.000																							
▽	38.000																							
▽	40.000																							

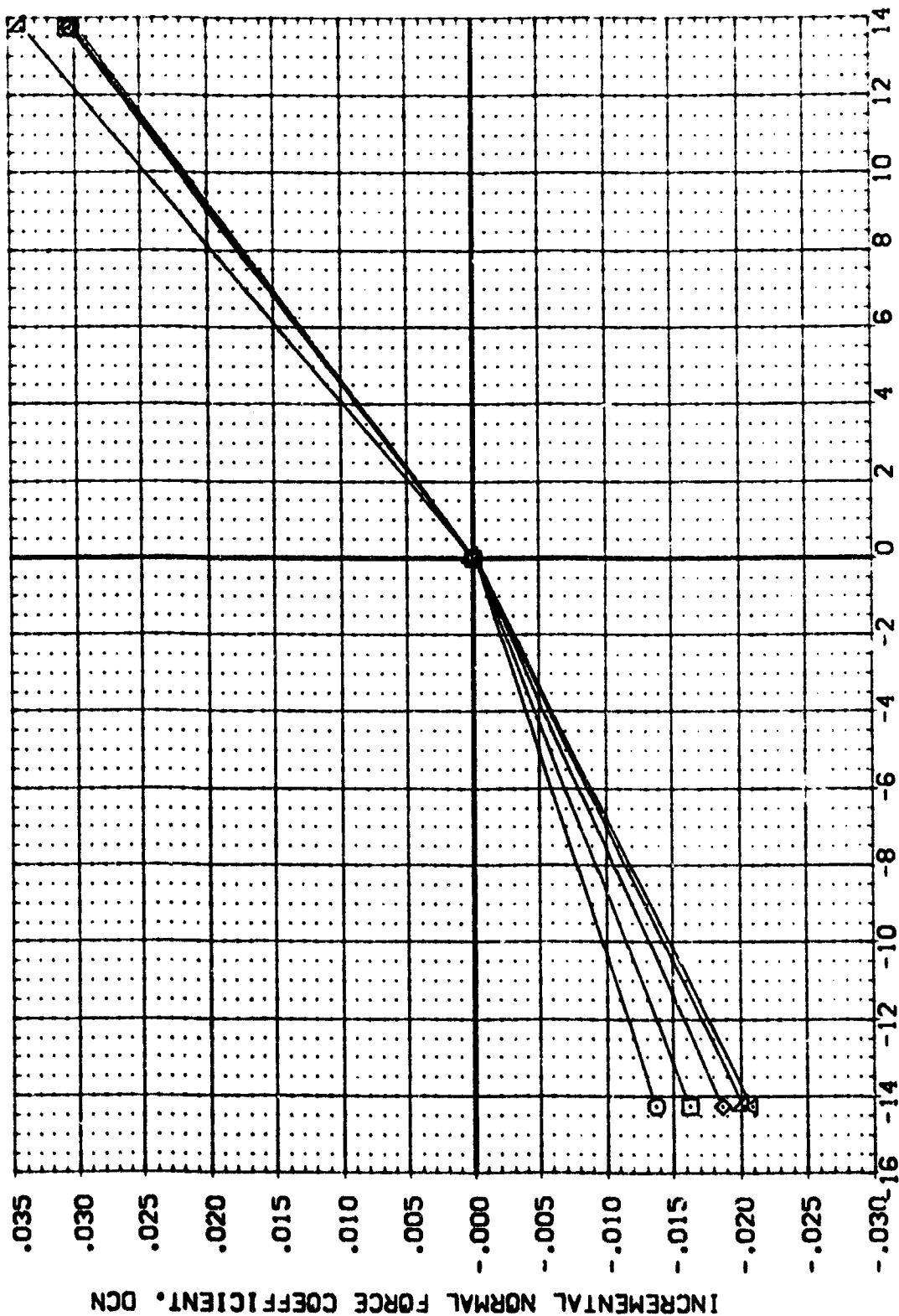


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

(L87025)

MSFC 574(GA48) CRB 139B

REFERENCE IN ORIGIN

DATA SOURCE
DBF
-14.750
13.750

PARAMETRIC VALUES
BETA
AILRON

ALPHA
MACH
ELEVTR
SPDRBK

SYMBOL
20.000
22.000
24.000
26.000
28.000
30.000

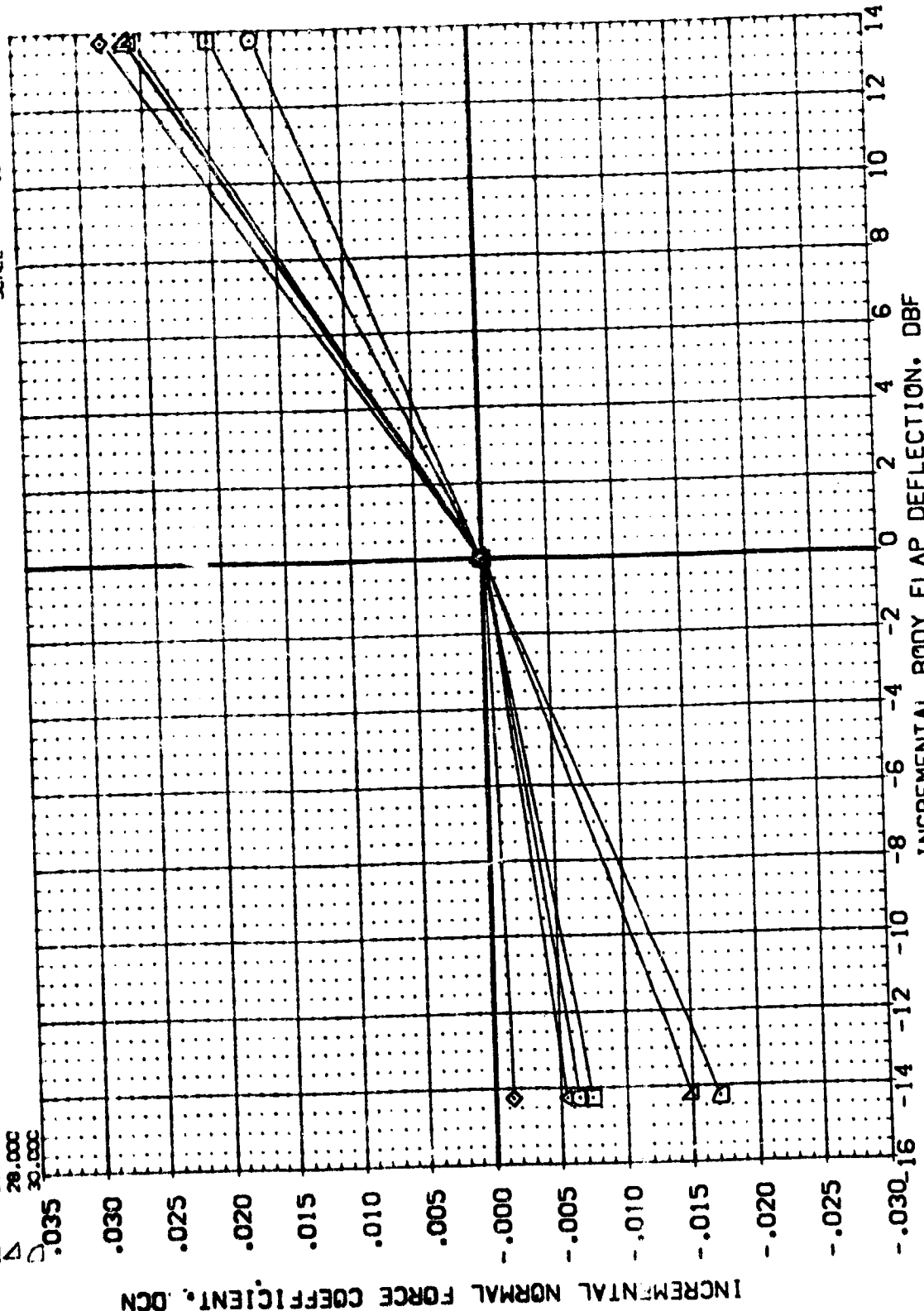


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

MSFC 574 (QA48) CRB : 398

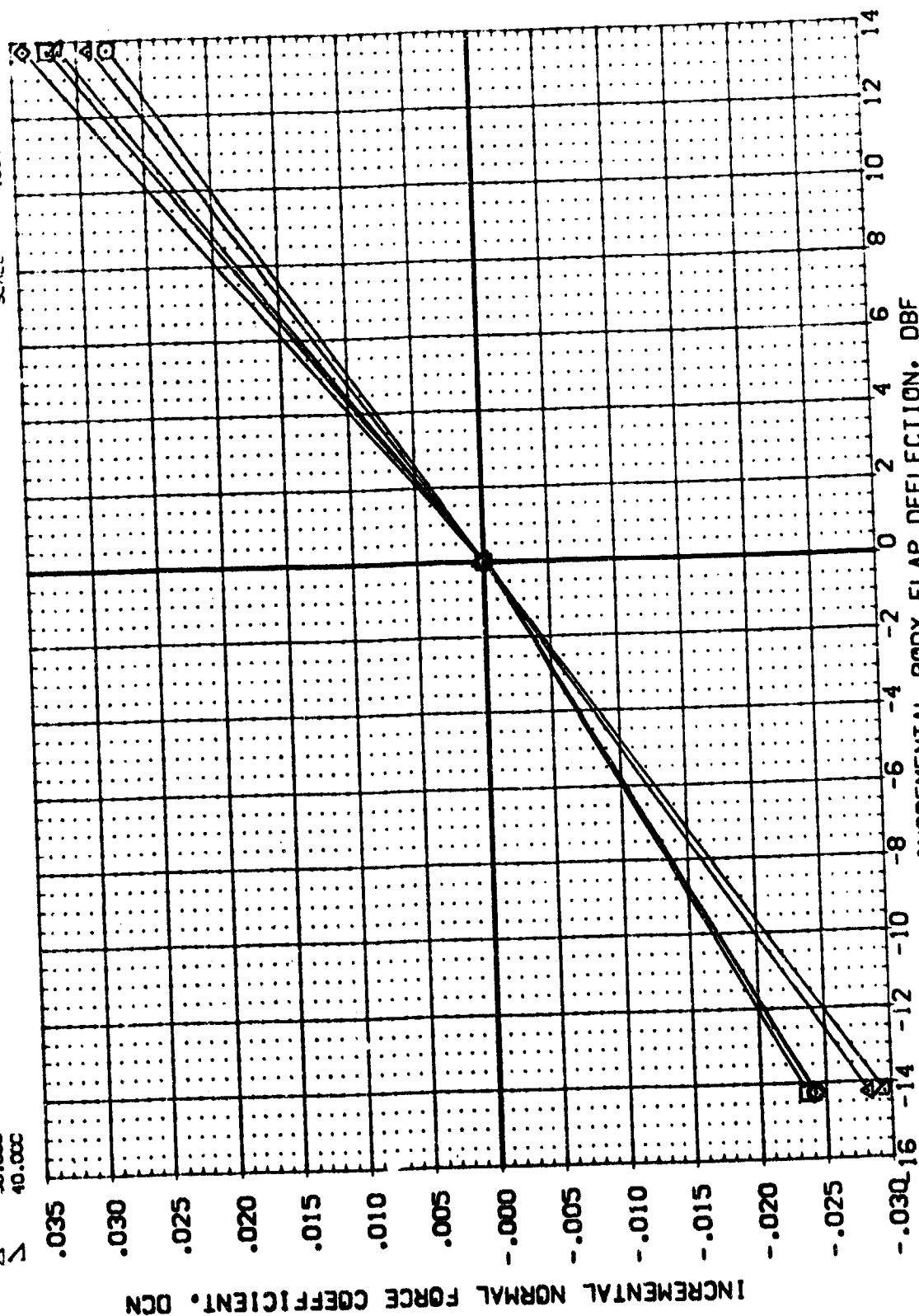
[illegible]

FIG. 33
INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

MSFC 574(CA48) ORB 139B

(L87026)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	MACH	DBF	DBF	SREF	SQ.FT.
40.000	4.960	.000	.000	2690.0000	122.7777
42.000	.000	L87026	L87030	474.8000	122.7777
44.000	999.990	L87029	L87030	936.7000	122.7777
46.000				838.7000	122.7777
48.000				.0000	122.7777
50.000				.0000	122.7777
				ZMRP	.0000
				SCALE	.0001

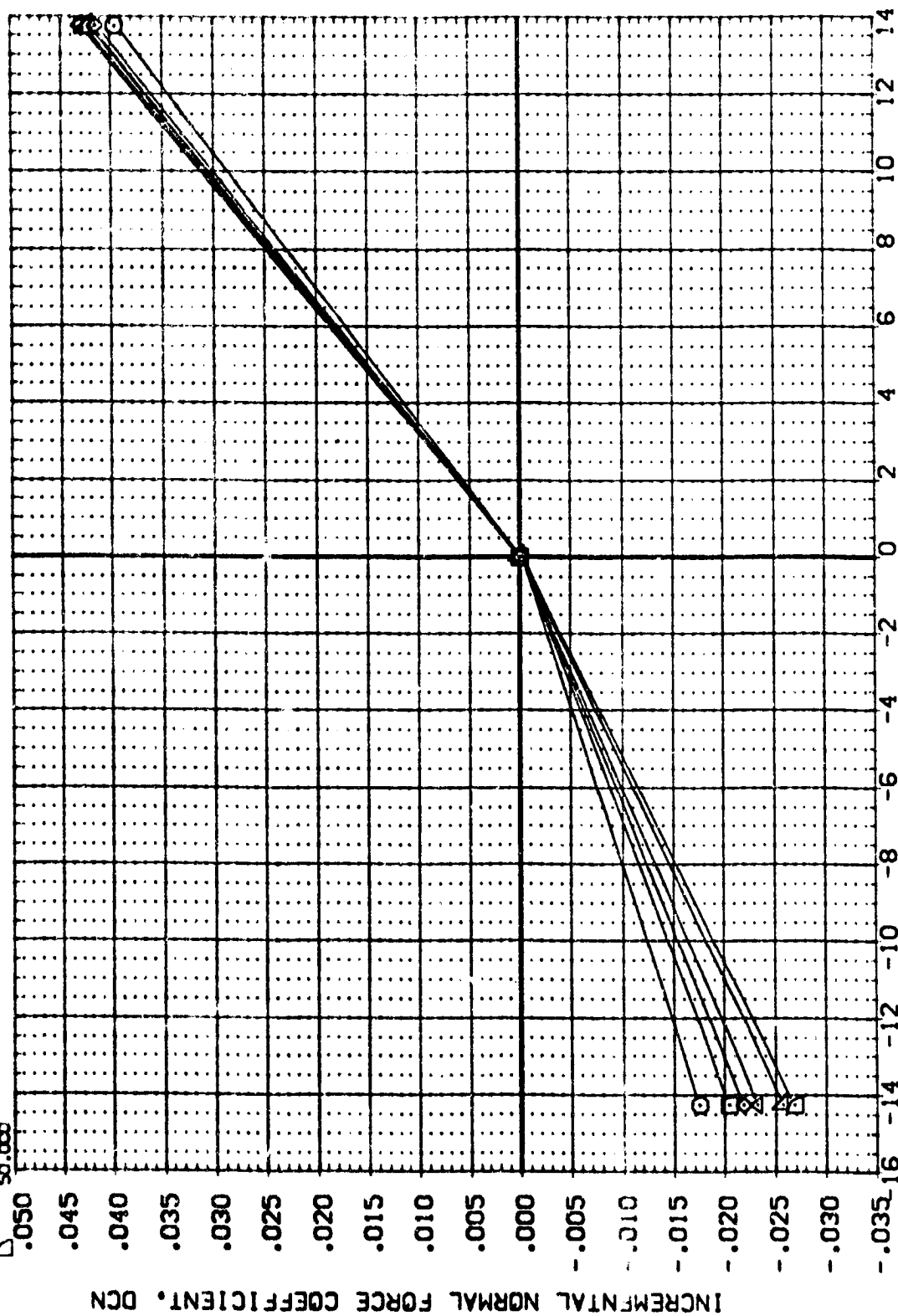


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

(187026)

MSFC 574(0A48) ORB 1398

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
SYMBOL	VALUE	DBF	DBF	SYMBOL	VALUE
ALPHA	52.000	.000	.000	SREF	2690.0000
BETA	4.950	.000	.000	LREF	474.8000
MACH	.000	.000	.000	BREF	935.7000
ELEVTR	999.990	.000	.000	XREF	838.7000
SPOBIM	999.990	.000	.000	YREF	.0000
		.000	.000	ZREF	.0000
		.000	.000	SCALE	.0040

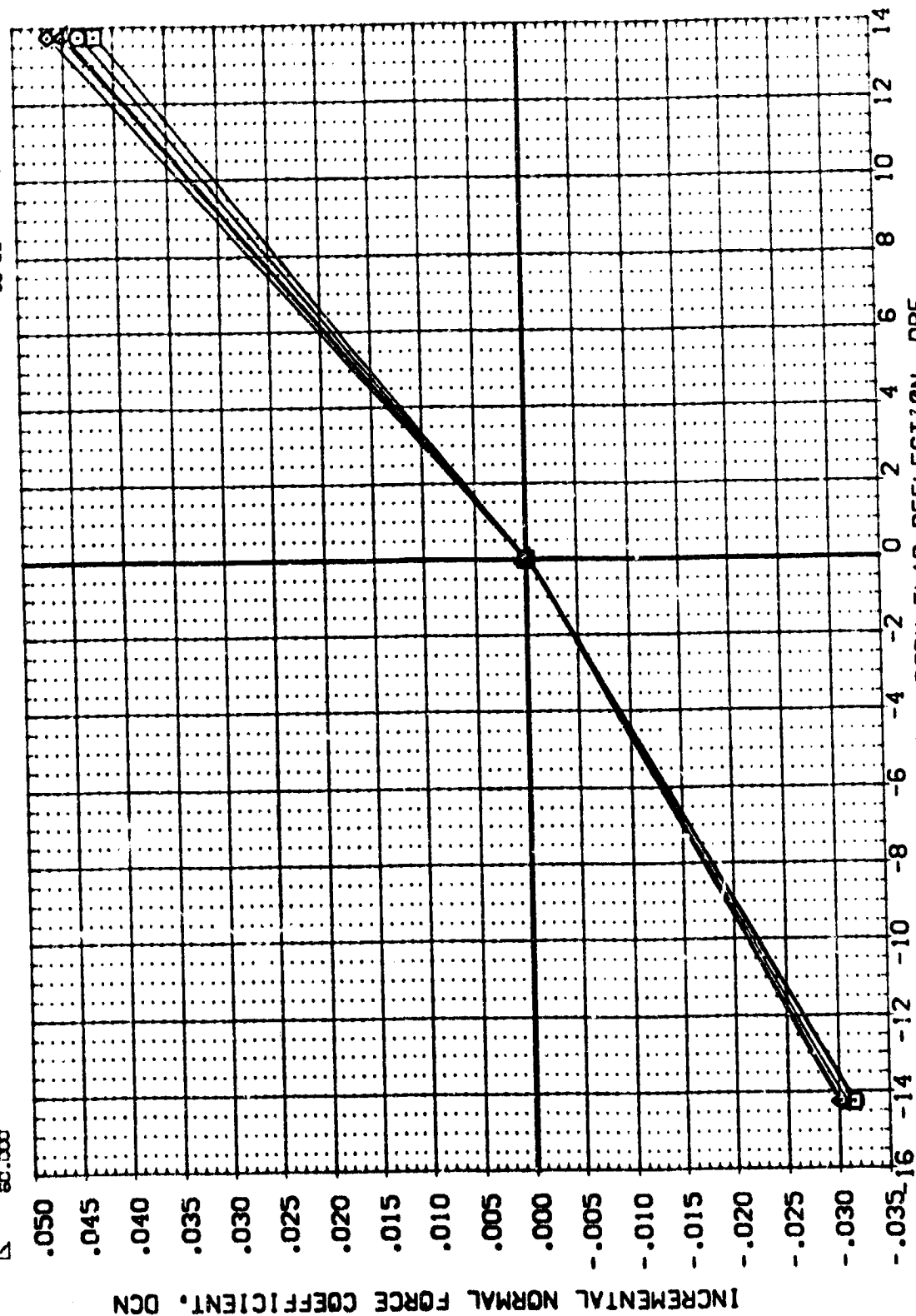


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 1398

(187024)

MSFC 574(0A48) ORB 139B

REFERENCE INFORMATION
 SREF 2690.0000
 LREF 474.8000
 BREF 936.7000
 XMRP 838.7000
 YMRP .0000
 ZMRP .0000
 SCALE .0010

DATA SOURCE
 DBF -14.250
 DBF 13.750

DATASET DBF
 DATASET L87008
 DATASET L87024
 DATASET L87027

PARAMETRIC VALUES
 BETA .600
 AILRON .000
 999.993

MACH .000
 ELEVTR 2.000
 SPDGRM 4.000
 6.000
 8.000
 10.000

ALPHA .000
 2.000
 4.000
 6.000
 8.000
 10.000

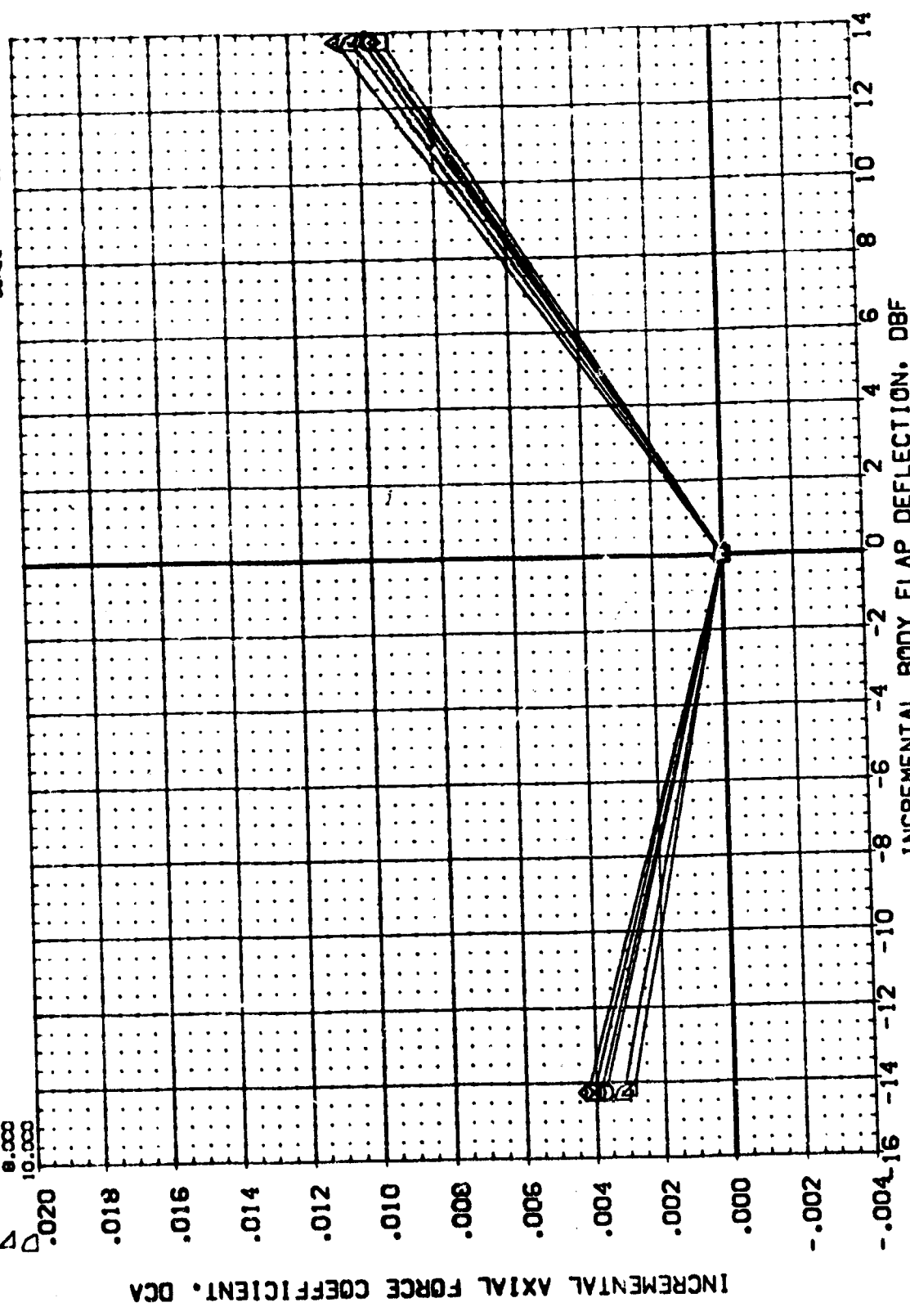


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

(L87024)

MSFC 574(0A48) ORB 139B

SYMBOL		ALPHA		MACH		PARAMETRIC VALUES		DATA SOURCE		DATASET		DBF		SREF		REFERENCE INFORMATION	
○	2.000					.600	BETA								2690.0000	SC.F.	
△	4.000					.000	ALLRON								474.8000	REF	
◇	16.000					999.990									936.7000	REF	
▽	20.000														838.7000	REF	
															.0000	YMRP	
															.0000	ZMRP	
															.0040	SCALE	

DATA SOURCE DBF -14.250 13.750
DATASET L87024 L87027
DBF .000 .000

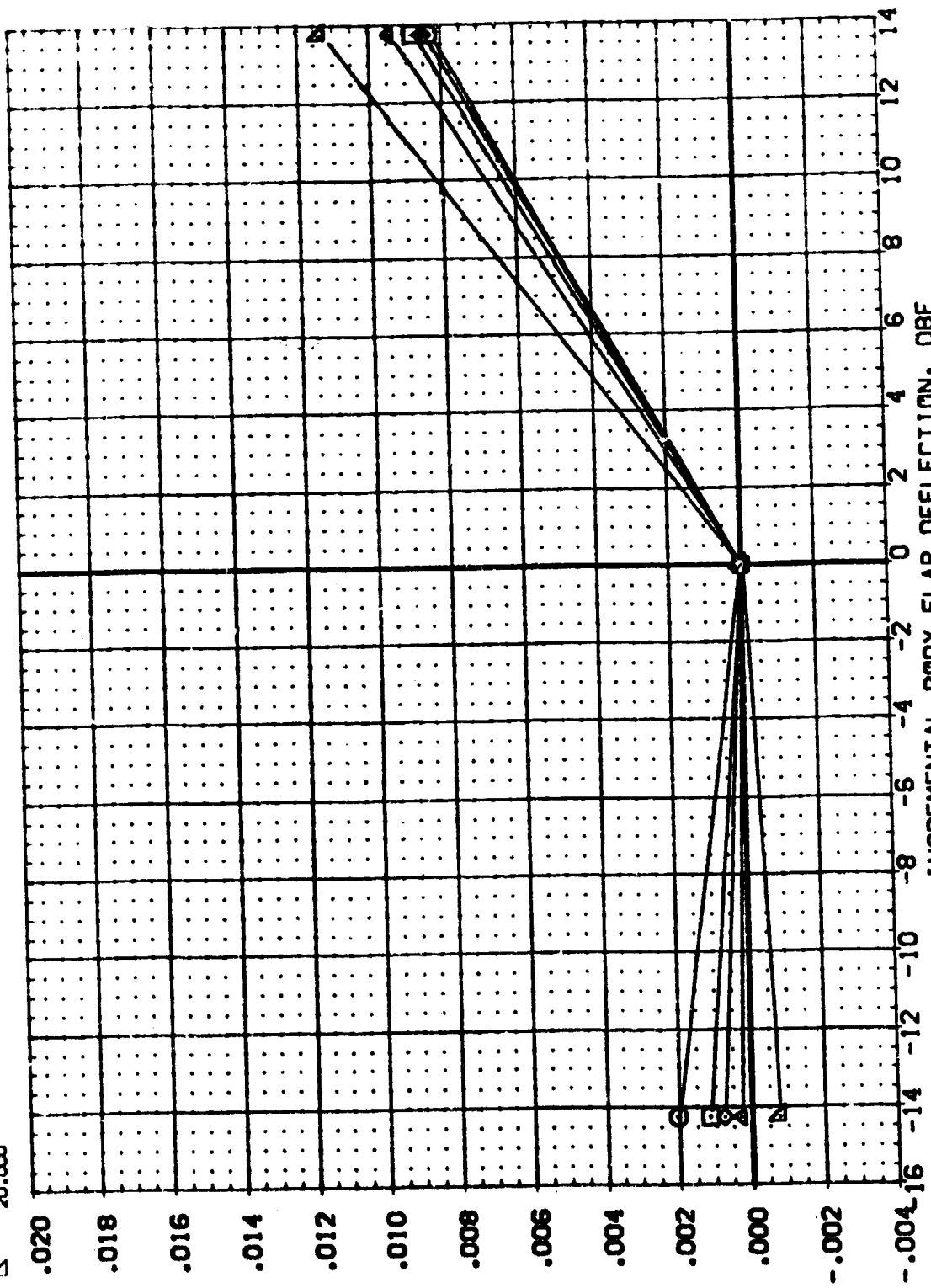


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

(1.87024)

MSFC 574(CA48) CRB 139B

SYMBOL		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
○	ALPHA	MACH	BETA	.000	DBF	SPREF	SC.F.T.
□	12.000	ELEVTR	AILRON	.000	DBF	LOEF	474.8000
◇	14.000	SPDRK	999.990	.000	DBF	SPREF	936.7000
△	16.000			.000	DBF	YHP	838.7000
▽	18.000			.000	DBF	ZHP	.0000
	20.000			.000	DBF	SCALE	.0040

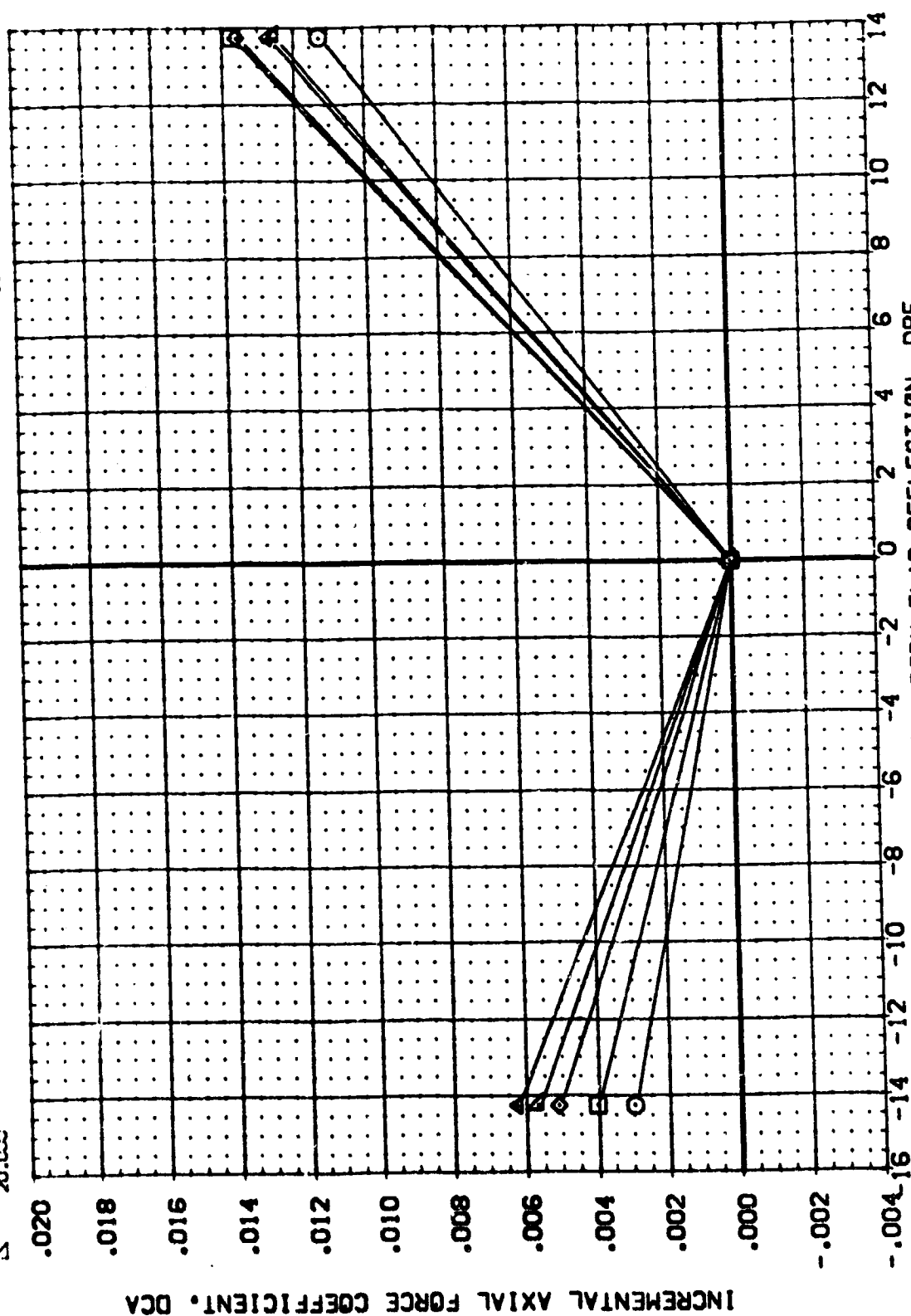


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

VSFC 574(0A48) CRB 139B

(L87024)

REFERENCE INFORMATION
 SREF 2690.0000
 LREF 474.8000
 SREF 936.7000
 XREF 838.7000
 YREF .0000
 ZREF .0000
 SCALE .0010

DATA SOURCE
 DBF -14.250
 L87008 13.750

PARAMETRIC VALUES
 MACH 1.200
 BETA .000
 AILRON 999.990

ALPHA
 .000
 2.000
 4.000
 6.000
 8.000
 10.000

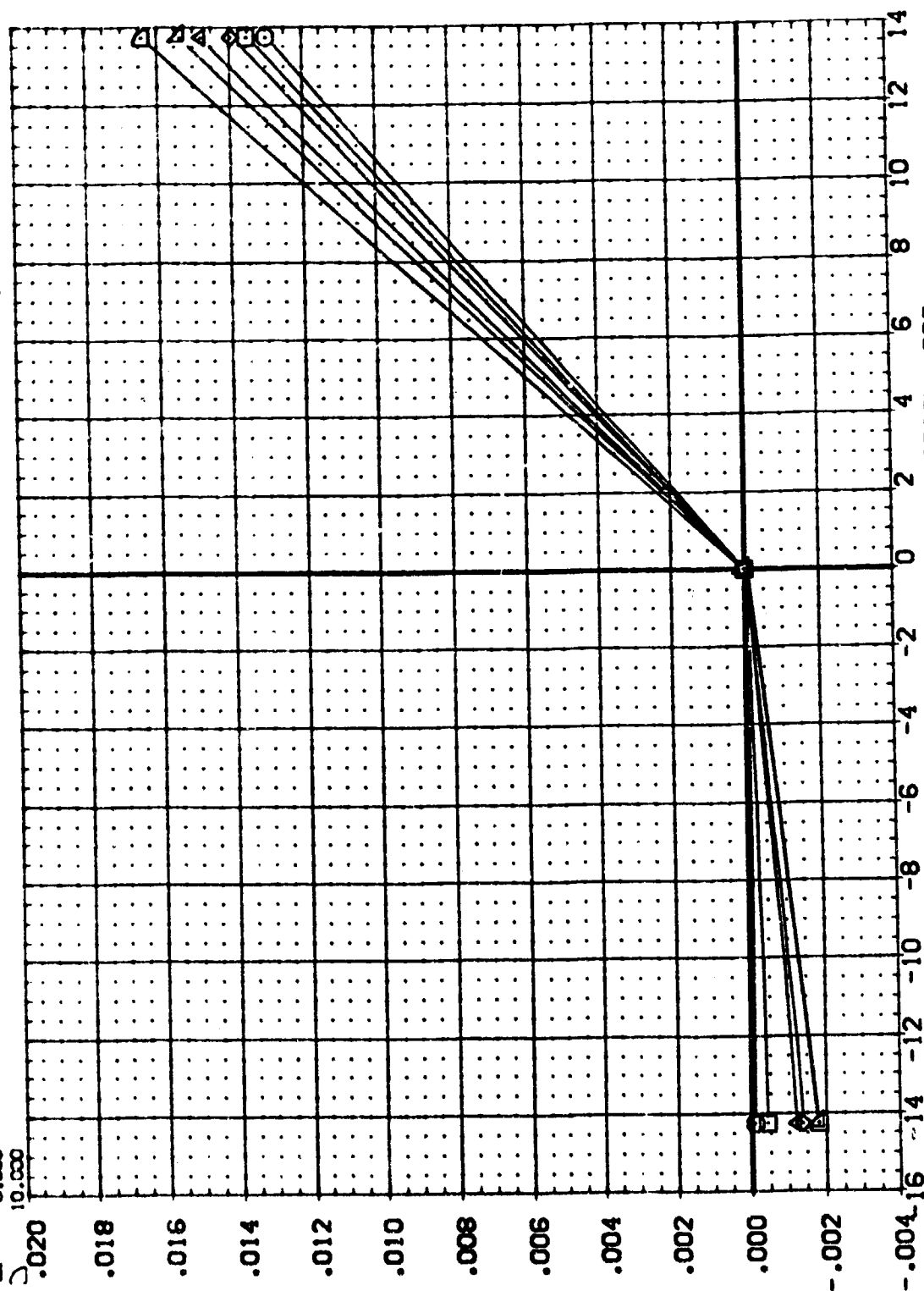


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

MSFC 574(0A48) OR3 :39B

REFERENCE INFORMATION

2690.0000
474.8000
936.7000
838.7000
0000
0000
0000
0000

92.F.
zzzzzz

DATA SOURCE
DBF
-14.250
13.750

.000 DATASET
 .000 L87024
 .000 L87027

PARAMETRIC VALUES
BETA 1.200
ALPHA .000
R2 .990

**MACH
ELEVTR
SPDRM**

ALPHA
12.000
14.000
16.000
18.000
20.000

SYMBOL

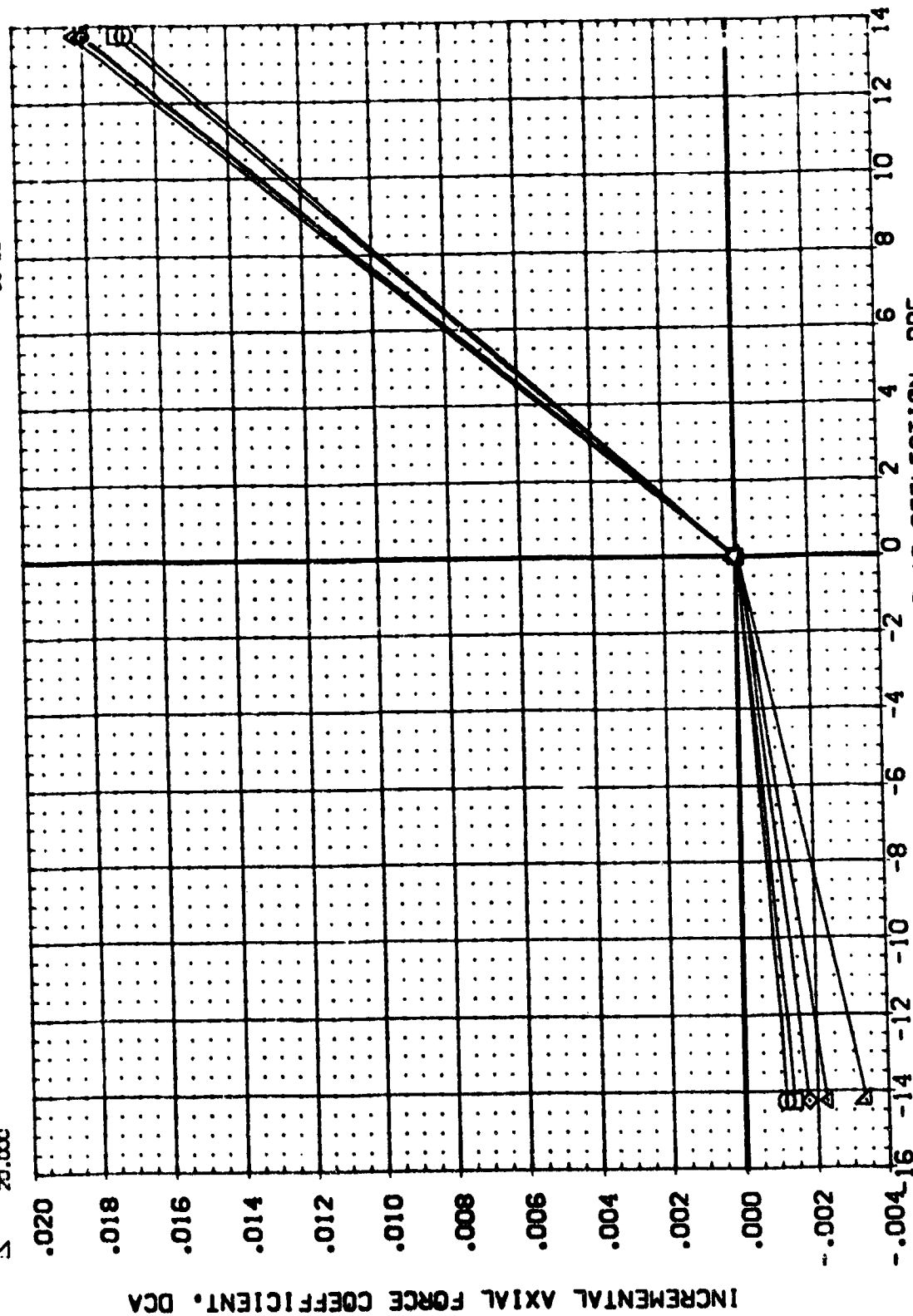


FIG. 33. INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

[L87024]

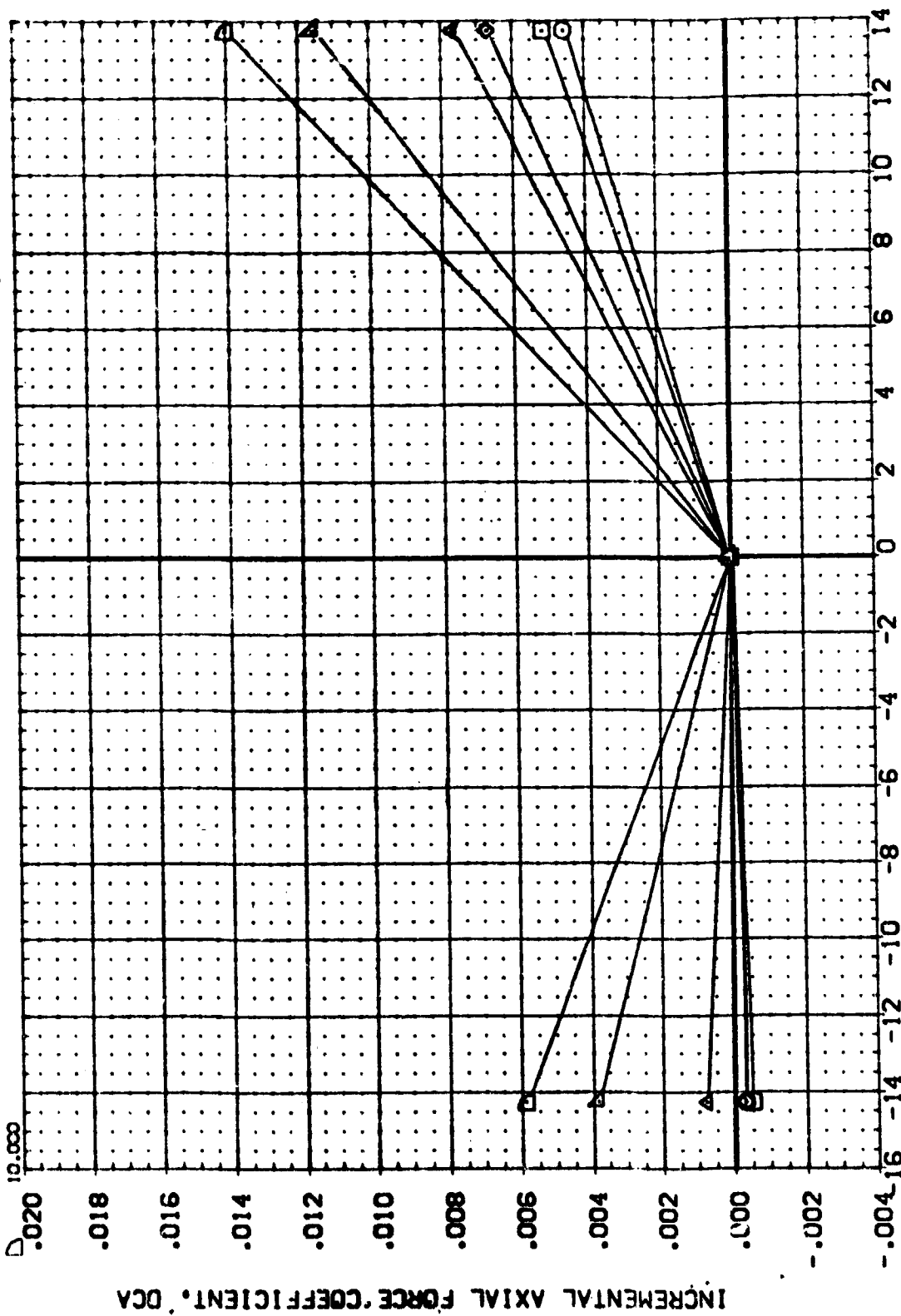
[illegible]

FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

[L87024]

REFERENCE INFORMATION:
2690.0000
474.8000
936.7000
838.7000
0000
0000
0000
0000

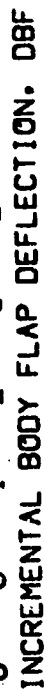


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

(L87024)

MSFC 574(0A48) ORB 139B

SYMBOL		PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
		ALPHA	MACH	BETA	DBF	DATASET	DBF	SREF	LREF	BREF	SCALE
○	○	.000		2.990	.000	L87024	.000	2690.0000	474.8000	936.7000	SC.FT.
□	□	2.000	ELEVTR	.000	.000	L87027	.000	474.8000	936.7000	936.7000	IN.
◇	◇	4.000	SPOBRK	999.990	.000			474.8000	936.7000	936.7000	IN.
△	△	6.000			.000			474.8000	936.7000	936.7000	IN.
▽	▽	8.000			.000			474.8000	936.7000	936.7000	IN.
▽	▽	10.000			.000			474.8000	936.7000	936.7000	IN.

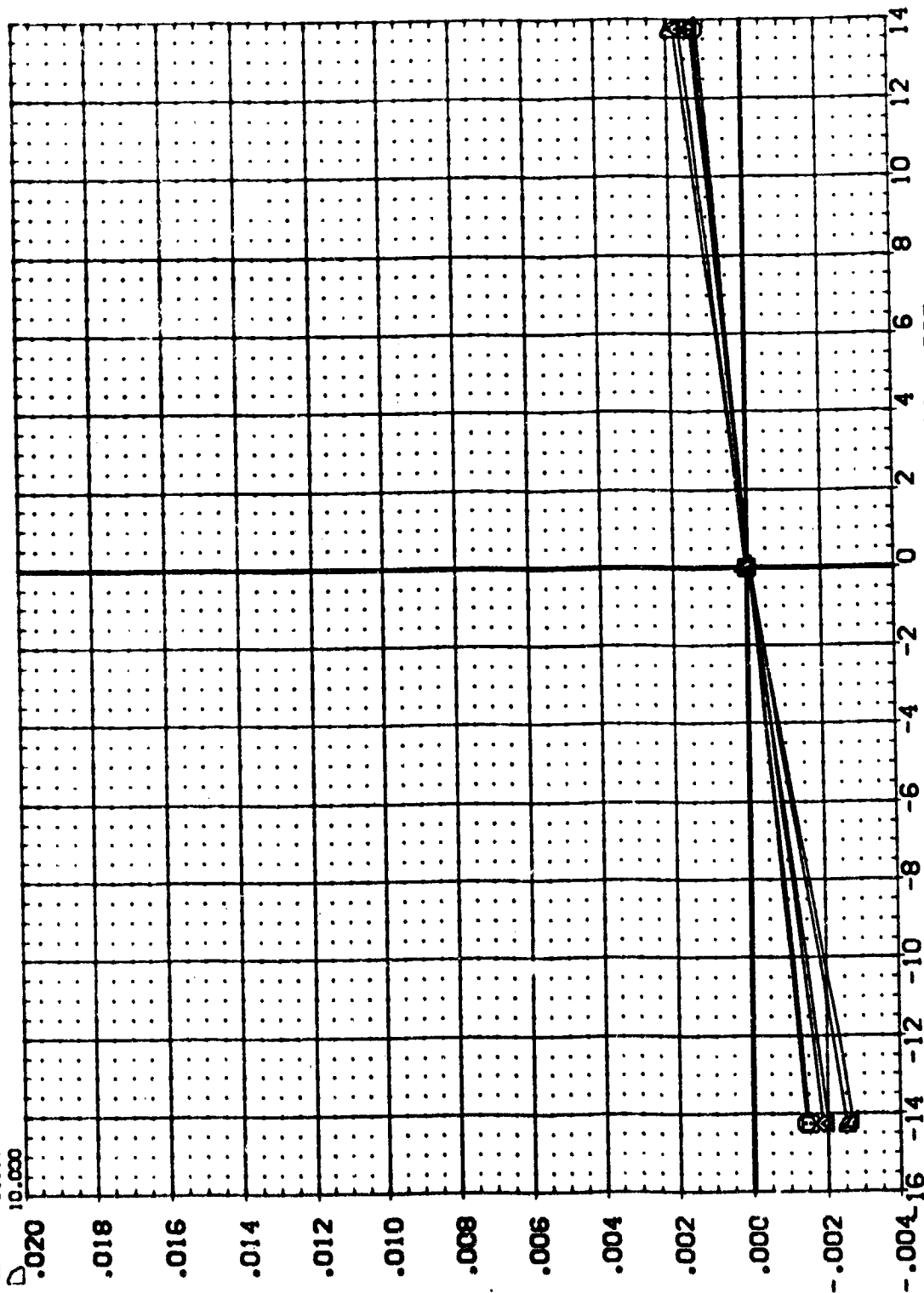


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

(L87024)

MSFC 574(0A48) ORB 139B

SYMBOL	ALPHA	MACH	ELEVTR	SP08RK	PARAMETRIC VALUES	.000	DATASET	DBF	-14.250	13.750	DATA SOURCE	DATASET	DBF	.000	L87008	SRF	2690.0000	SC.F.T.	777777
	12.000				BETA											LREF	474.8000		
	14.000				AILRON											BREF	936.7000		
	16.000															XREF	838.0000		
	18.000															YREF	0000		
	20.000															ZREF	0000		
																SCALE	0010		

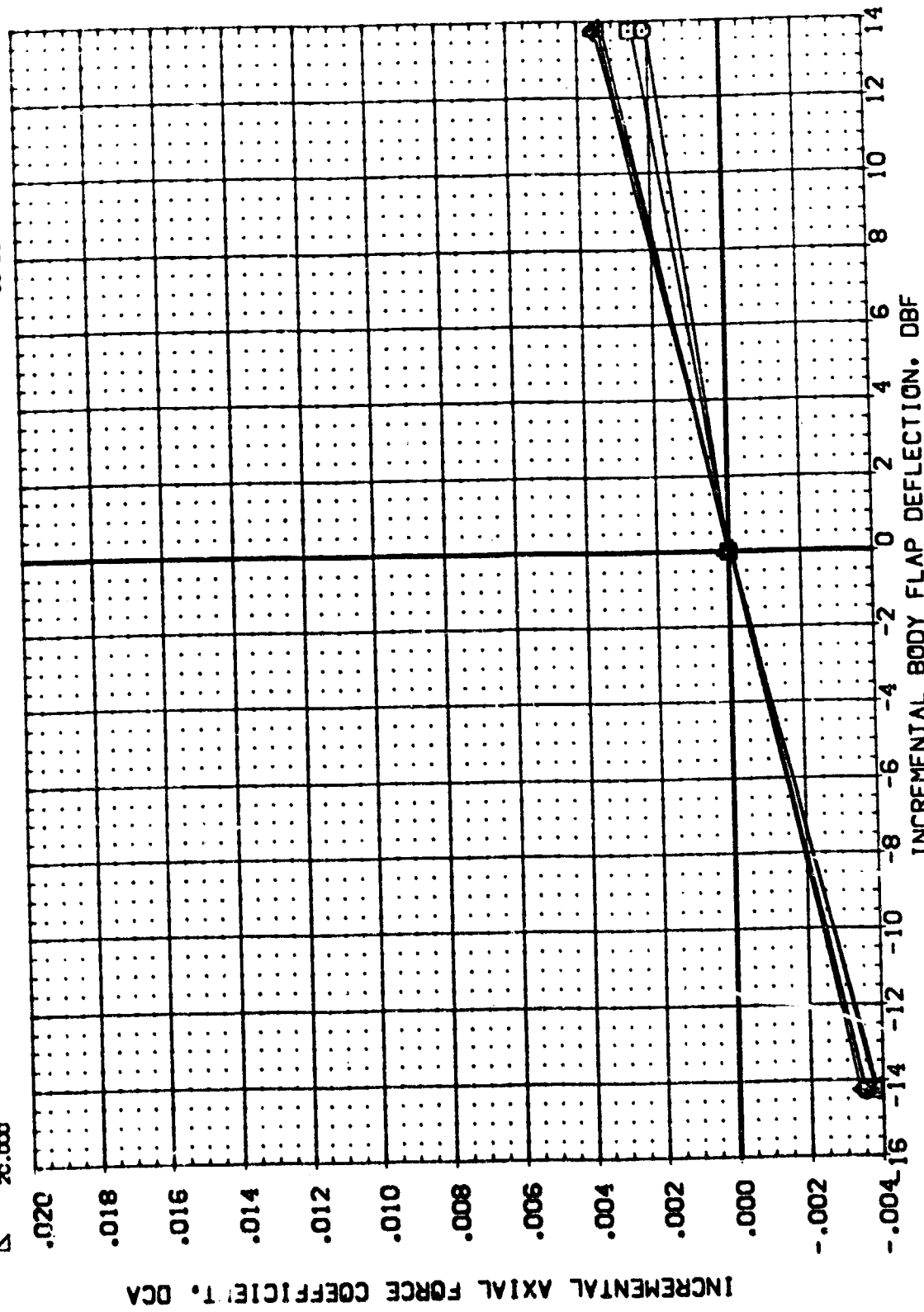


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

(L87024)

MSFC 574(OA48) CRB 139B

SYMBOL		ALPHA		MACH		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
○	.000	4.960	BETA	DBF	DBF	SREF	2690.0000	DBF	DBF	SREF	2690.0000
□	2.000	ELEVTR	.000	DBF	DBF	LREF	474.8000	DBF	DBF	LREF	474.8000
△	4.000	SPDRK	999.990	DBF	DBF	SREF	936.7000	DBF	DBF	SREF	936.7000
▽	6.000			DBF	DBF	XREF	836.7000	DBF	DBF	XREF	836.7000
◇	8.000			DBF	DBF	YREF	.0000	DBF	DBF	YREF	.0000
◇	10.000			DBF	DBF	ZREF	.0000	DBF	DBF	ZREF	.0000
				DBF	DBF	SCALE	.0040	DBF	DBF	SCALE	.0040

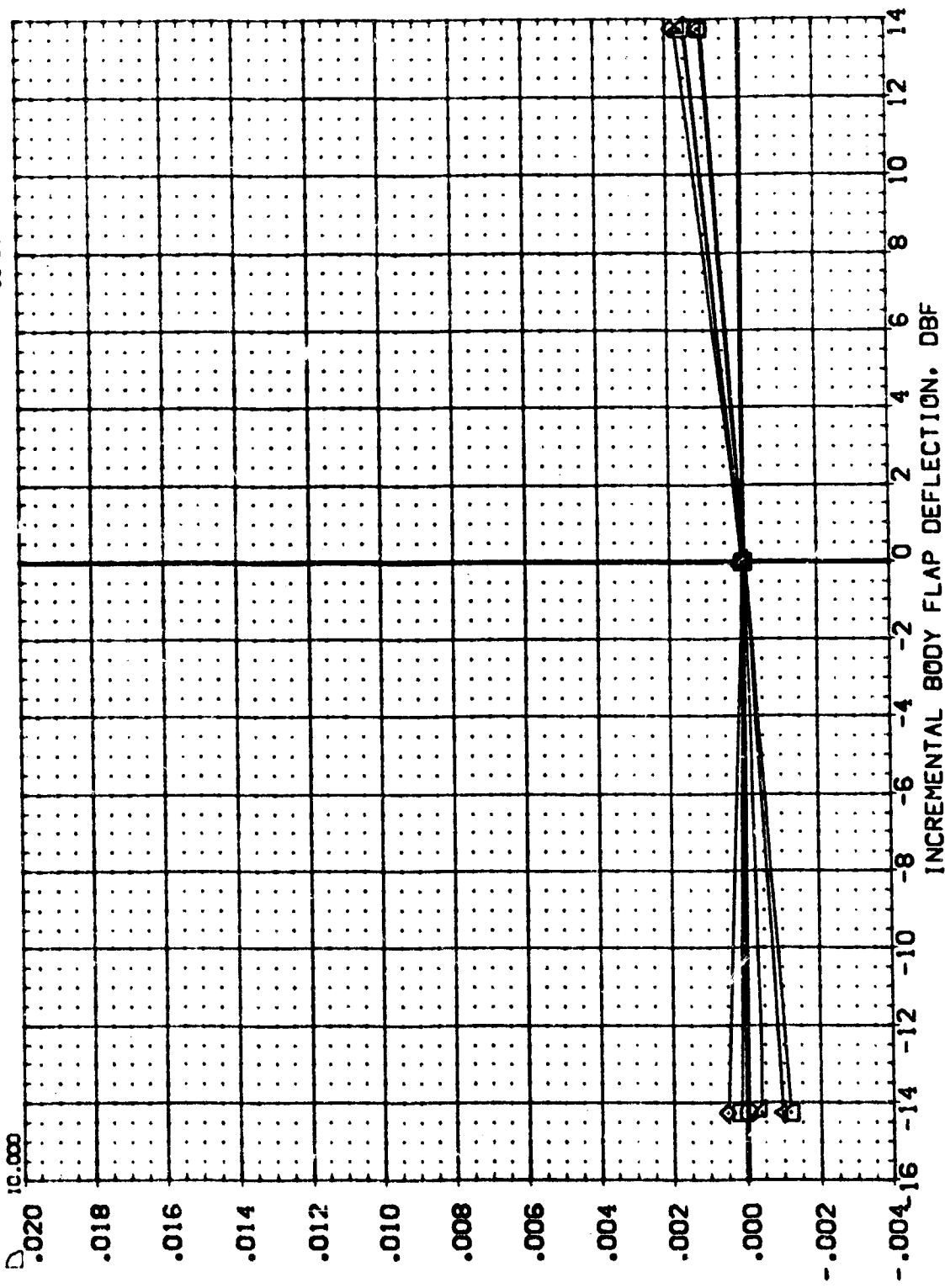


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

(L87024)

MSFC 574(OA48) ORB 139B

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	.000	DATASET	DBF	DATA SOURCE	DBF	DATASET	DBF	REFERENCE INFORMATION
□	12.000		4.960 BETA	.000	L87024	-14.250			L87008	.000	SREF 26901.0000
□	14.000		.000 AILRON	.000	L87027	13.750					REF 474.8000
◇	16.000	ELEVTR	999.990								BREF 936.7000
△	18.000	SPDBRK									YMRP .0000
△	20.000										ZMRP .0000
											SCALE .0010
											SCALF

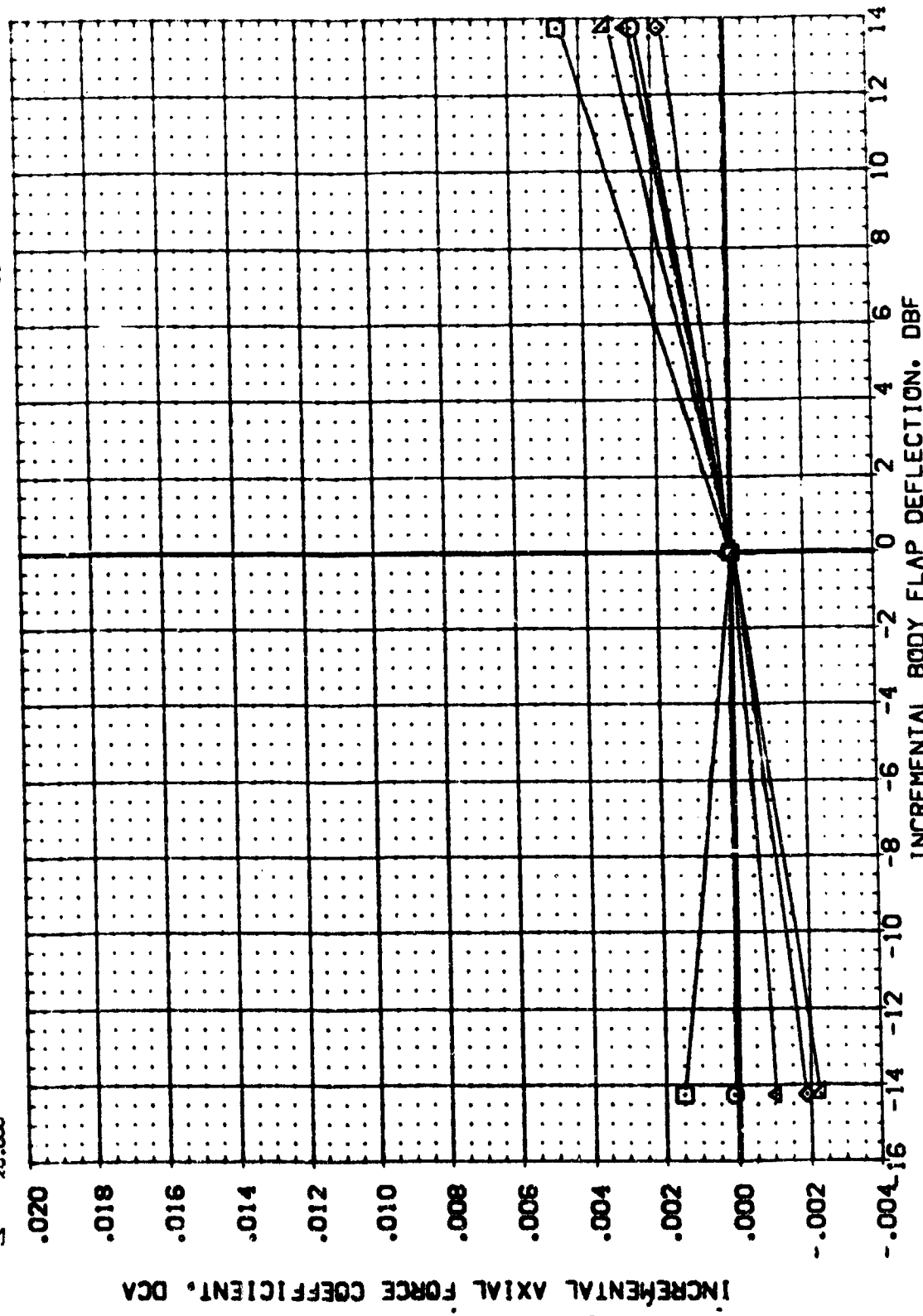


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

(L87025)

REFERENCE INFORMATION

2650 0000
474 8000
936 7000
838 7000
0000
0000
0040

SECRET

SCALP
ZMPD
YMPD
XMPD
J3E8
J3E7
J3E6
J3E5

8

8

138

DATA
L 8700

RCE

A 500
250
750

DAY
DEC
-14
-13

2735

DATA:
L870
L870

88

532

BETA
AIRLINES

ERIC
O O O

PARAMETER
2.99
.00
99.99

8

CH
EVTR
DBRX

538

000000

20.
22.
24.
26.
28.

801044

Synonyms:

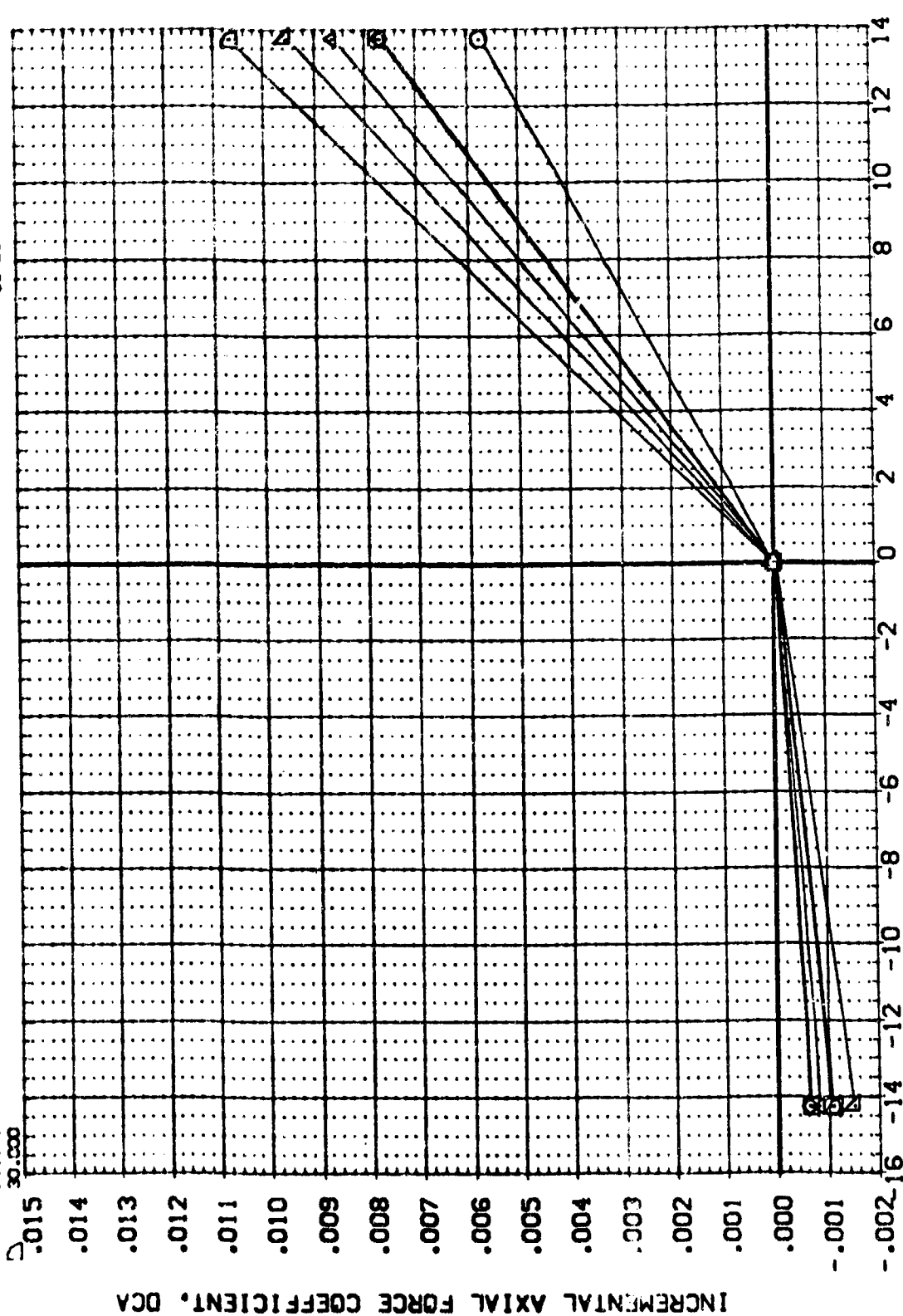


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

(L87025)

MSFC 574(OA48) ORB 139B

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	MACH	DBF	DBF	SREF	SCAL
32.000	2.590	.000	.000	2690.0000	SCAL
34.000	ELEVTR	.000	.000	LREF	SCAL
36.000	SPDRK	.000	.000	936.7000	SCAL
38.000		.000	.000	838.7000	SCAL
40.000		.000	.000	YREF	SCAL
		.000	.000	ZREF	SCAL
		.000	.000	SCALE	SCAL

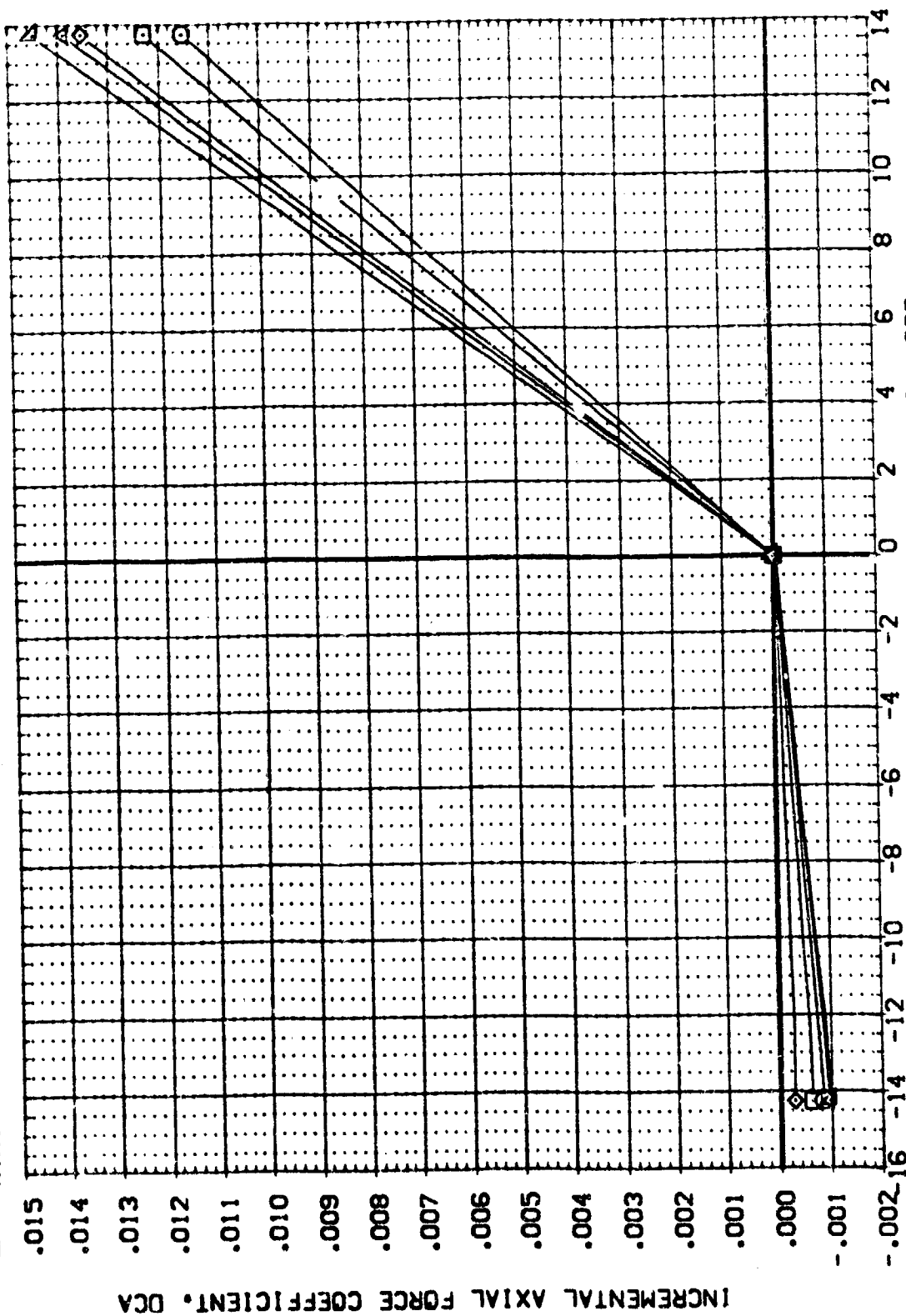


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

MSFC 574(CA48) GR3 1353

REFERENCE INFORMATION	SCALE
SREF	2690.0000
REF	471.8000
SREF	935.7000
XREF	838.7000
YREF	.0000
ZREF	.0000
SCALE	.0010

	DATA SOURCE
0000	DBF
0000	-14.250
0000	13.750

PARAMETRIC VALUES

ALPHA	MACH
20.000	ELEVTR
22.000	SPOBRK
24.000	

0845

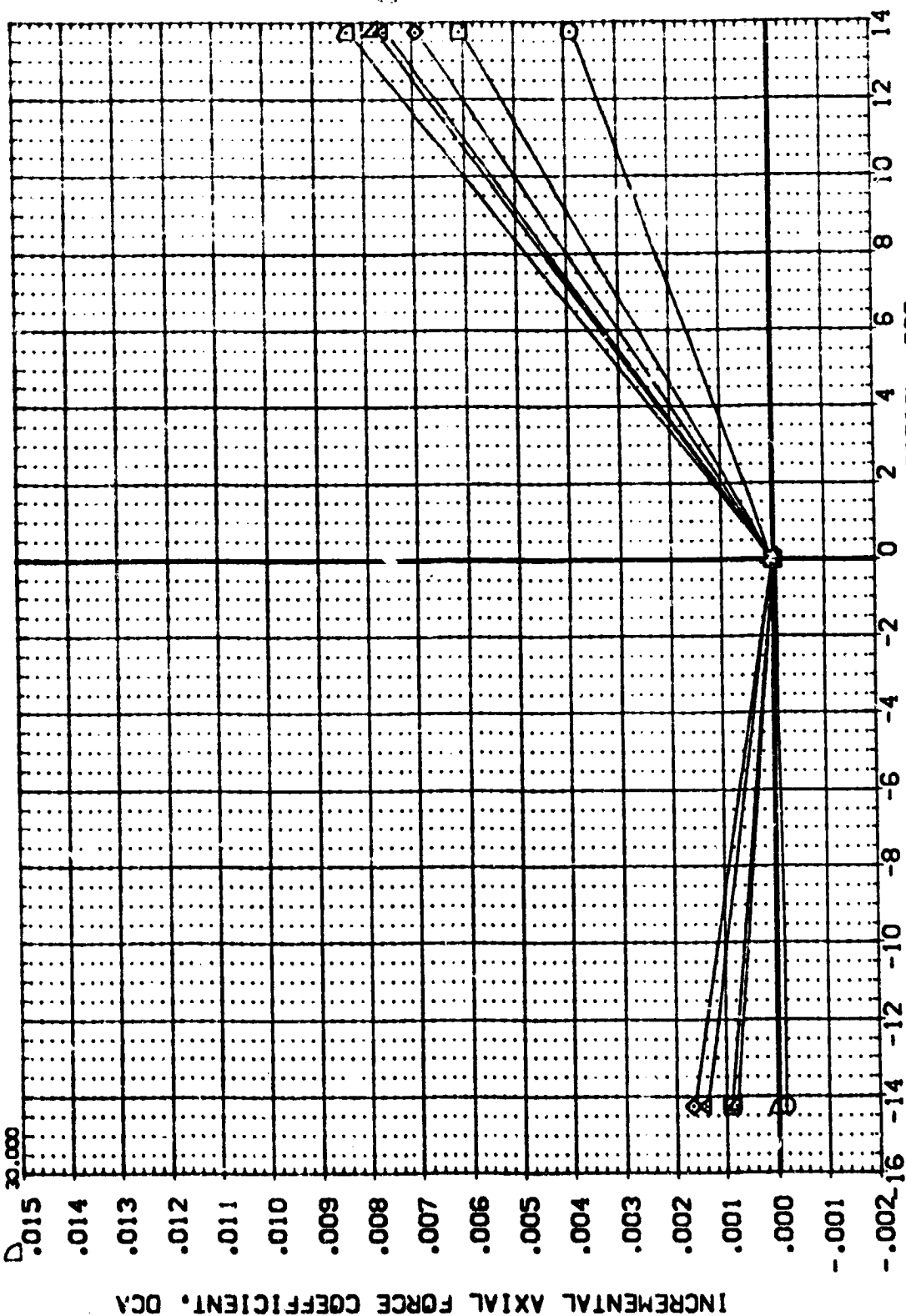


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

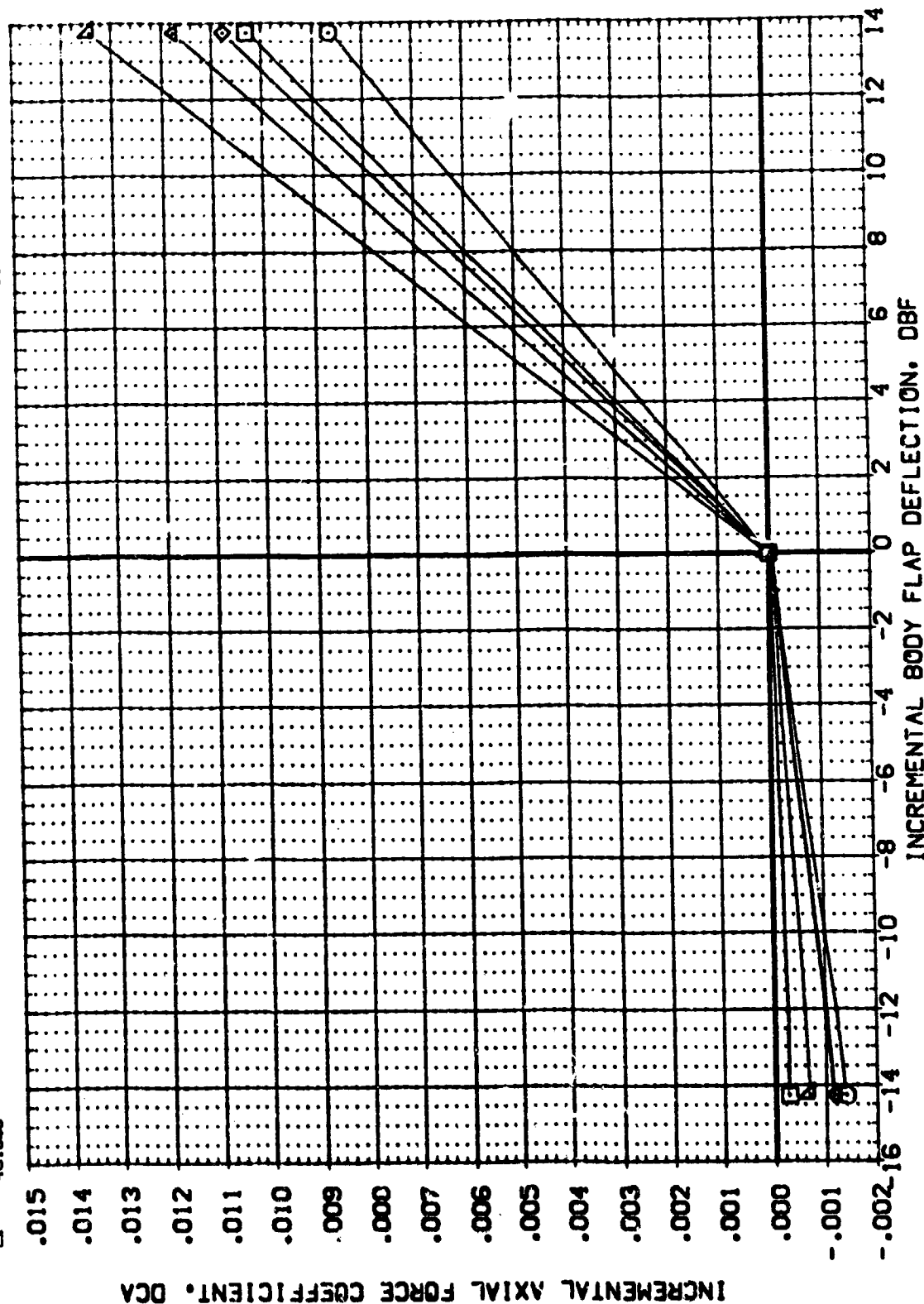
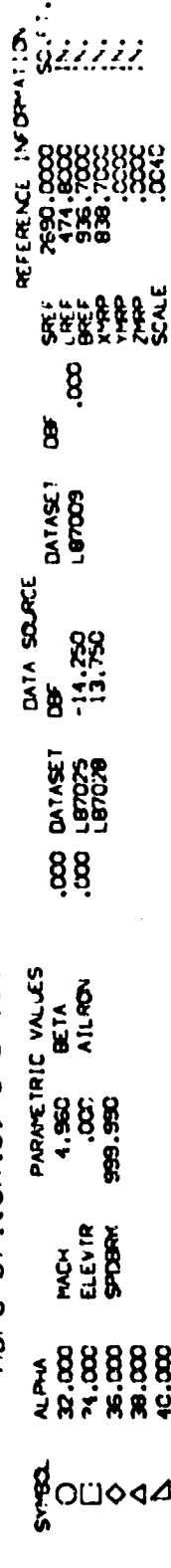


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

MSFC 574(CA48) ORB 139B

(L87026)

SYMBOL	ALPHA	MACH	ELEVTR	SPDRBK	PARAMETRIC VALUES	.000	DATASET	DBF	-14.250	13.750	DATASET	DBF	.000	SREF	2690.0000	SC.FI.
□	40.000				BETA	4.960					LREF	474.8000				
□	42.000				AIRCON	.000					BREF	936.7000				
◇	44.000					999.990					XMRP	838.7000				
△	46.000										YMRP	.0000				
△	48.000										ZMRP	.0000				
△	50.000										SCALE	.0040				

REFERENCE INFORMATION

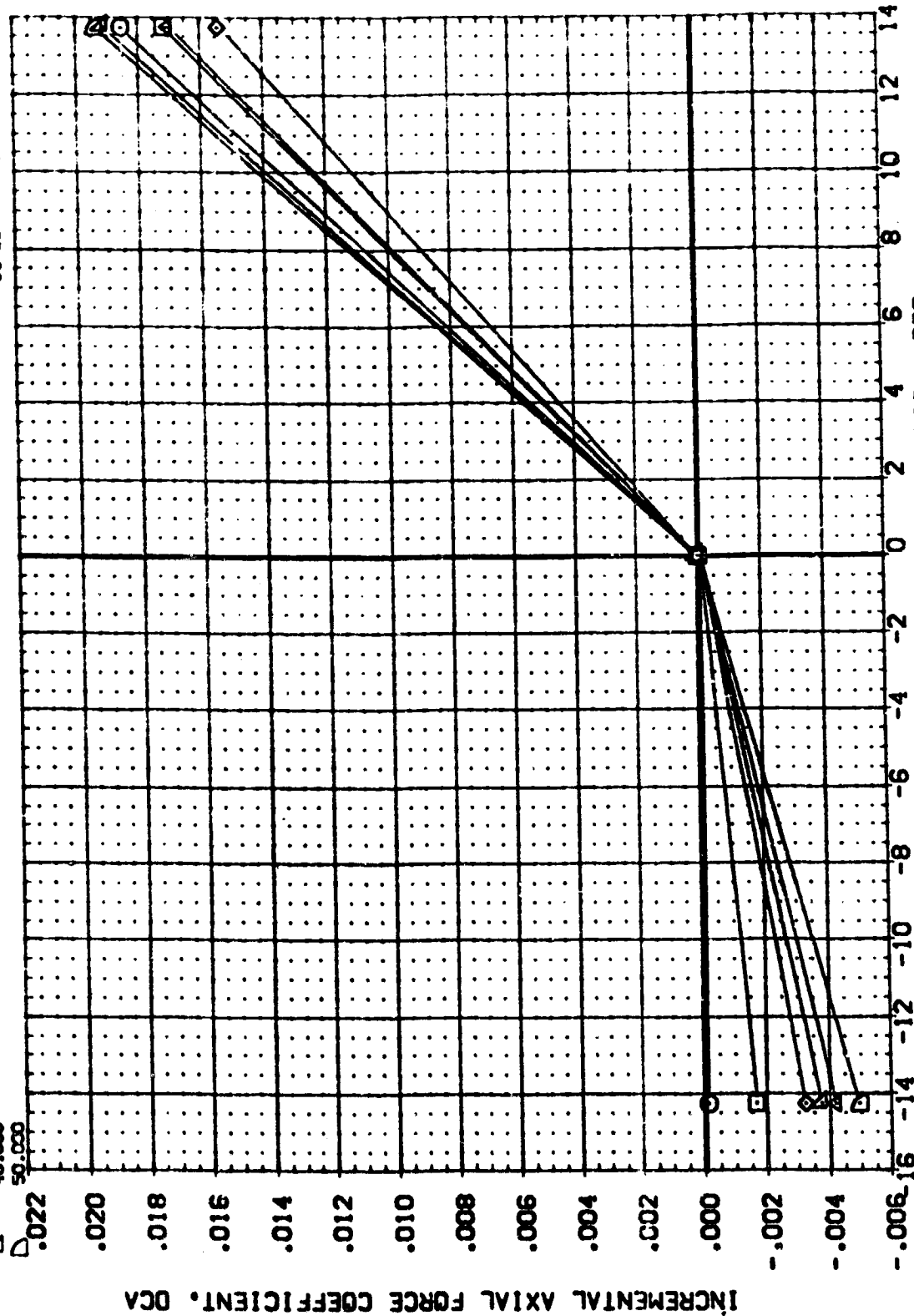


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

(L87026)

MSFC 574(0A48) ORB 139B

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	MACH	DBF	DBF	SREF	SO.F.
52.000	4.960	.000	.000	2690.0000	474.8000
54.000	ELEVTR	.000	.000	LR.F	936.7000
56.000	999.990	.000	.000	BR.F	838.7000
60.000	SPORR	.000	.000	YMRP	.0000
		.000	.000	ZMRP	.0000
		.000	.000	SCALE	.0040

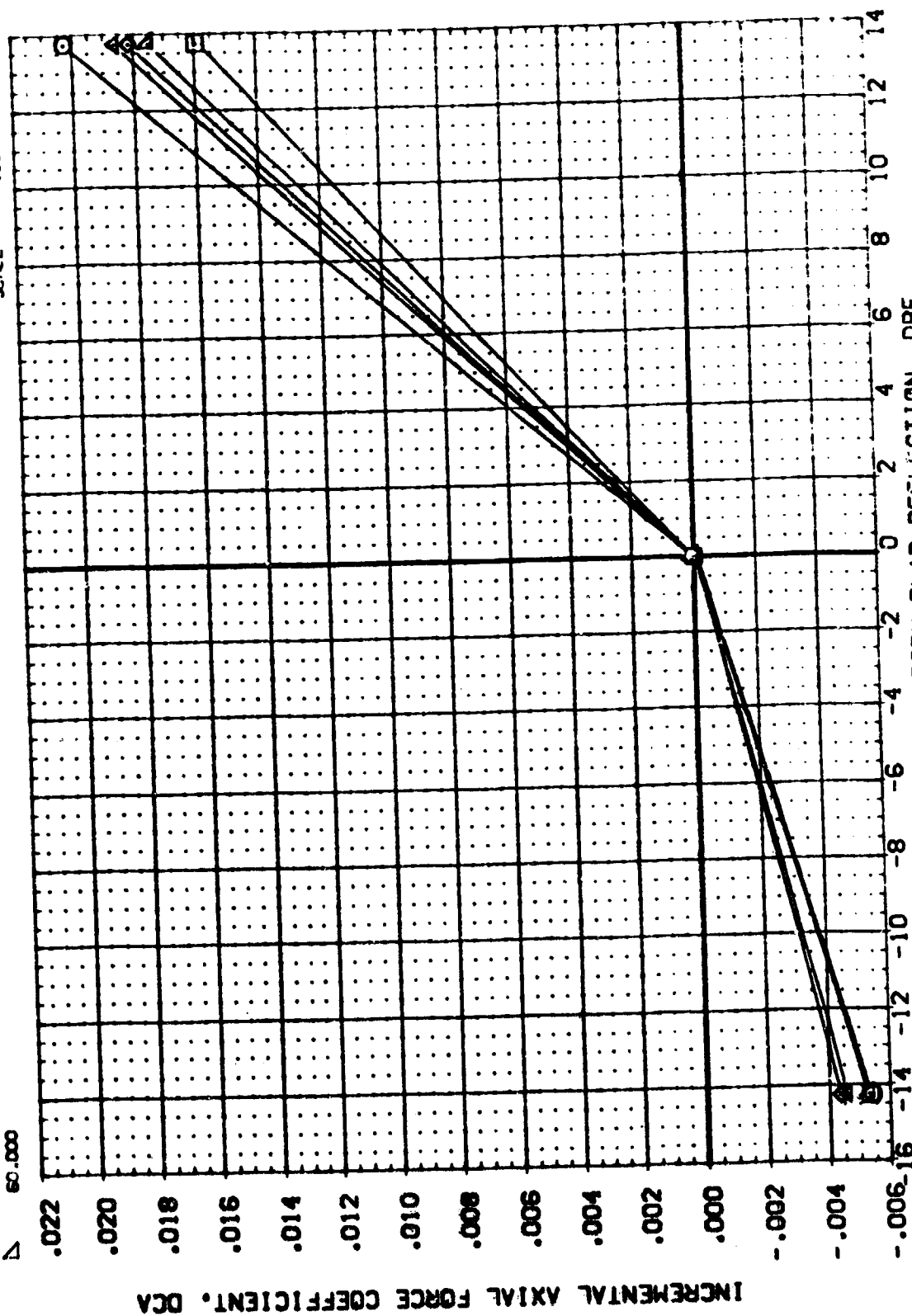


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

W5FC 574(0A48) ORB 139B

(L87024)

REFERENCE INFORMATION
SC: 11111111
SREF 7690.0000
REF 471.8000
BREF 936.7000
XREF 838.7000
VREF .0000
WREF .0000
SCALE .0010

DATA SOURCE
DBF -14.750
13.750

DATASET
L87024
L87027

PARAMETRIC VALUES
MACH .600
ELEVTR .000
SPDRK 999.990
BETA
ALLRON

ALPHA
.000
2.000
4.000
6.000
8.000
10.000

SYMBOL
□
◇
△
▽
○

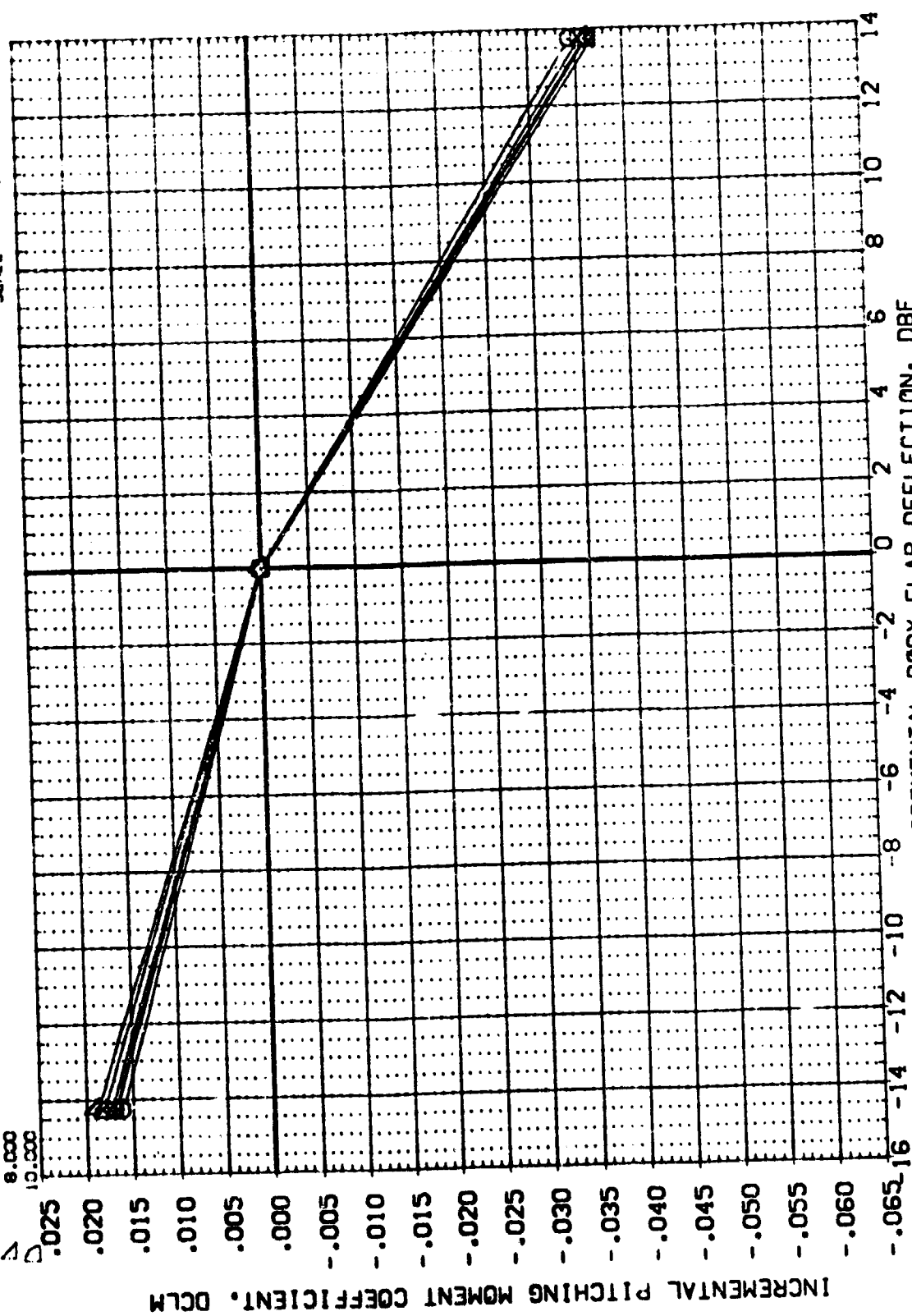


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

MSFC 574(CA48) GRB 1398

011041

ALPHA
12.000
14.000
16.000
18.000
20.000

MACH
ELEVTR
SPOBRK

PARAMETER
1.600
1.000
199.990

VALJES
DETA
WILSON

88

1347

22

1351

8

2690.
474.
936.
838.

5.

877-660-9999

800-660-9999

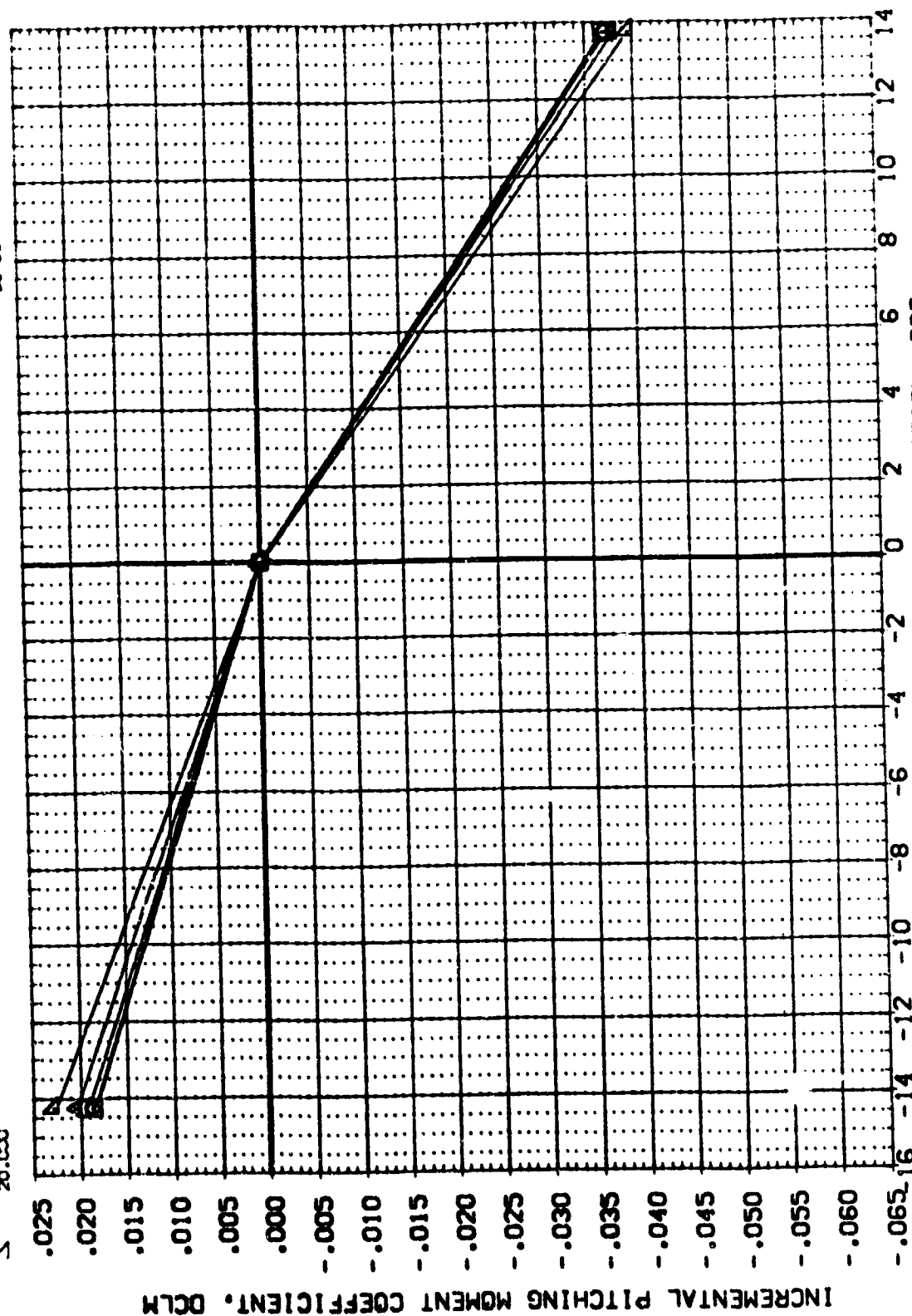


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

MSFC 574(0A48) ORB 139B (L87024)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
.000	.000	.900	BETA	.000	DBF	DBF	SREF	2690.0000
2.000	.000	.000	ALLRON	.000	DBF	DBF	LREF	474.8000
4.000	.000	.999.990					BREF	936.7000
6.000							XMRP	838.7000
8.000							YMRP	.0000
10.000							ZMRP	.0000
							SCALE	.0040

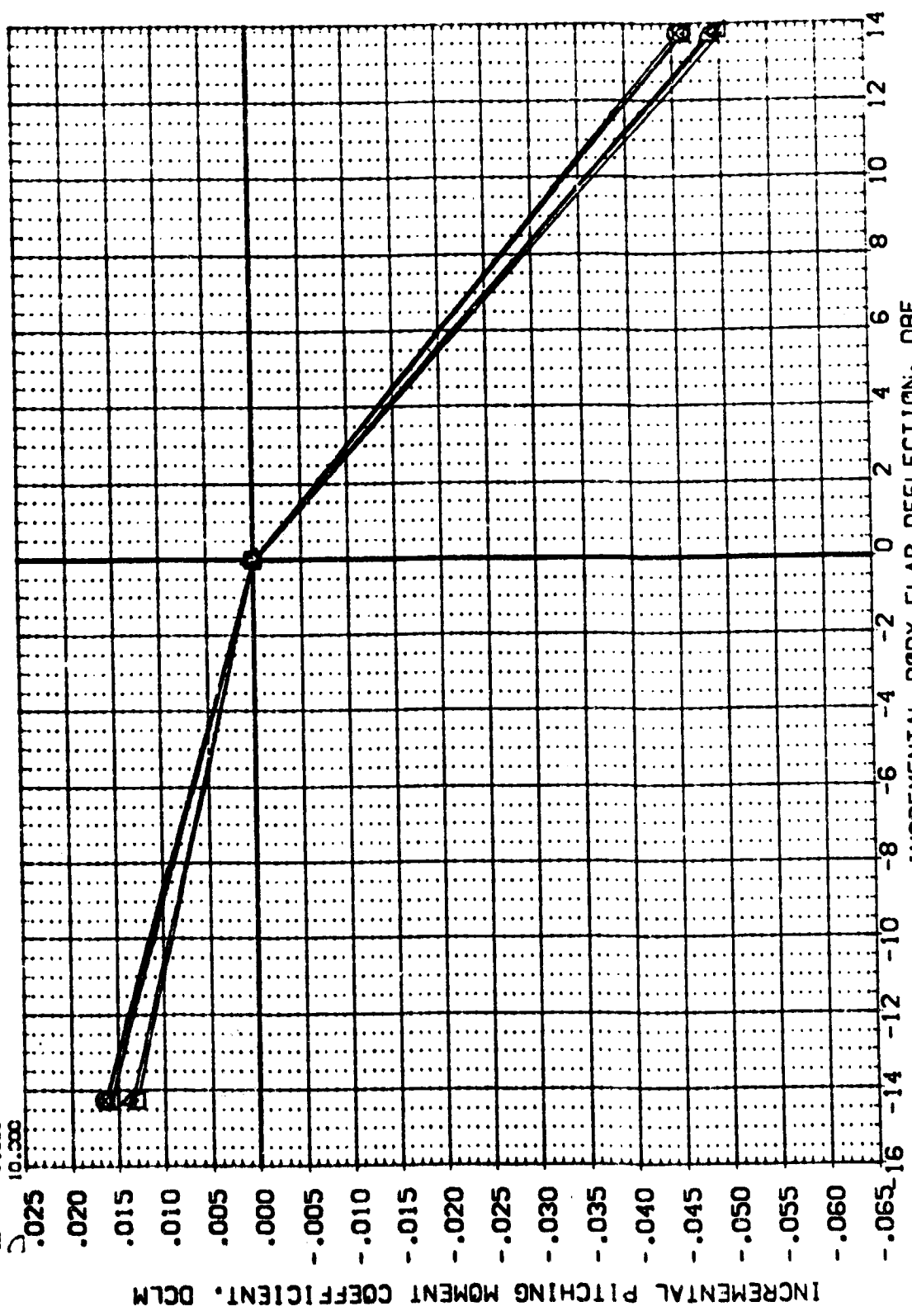


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

Symbol 0104.4

ALPHA
12.000
14.000
16.000
18.000
20.000

WACH
ELEV:R
SPD80X

006' 900'

VALDES
ETA
LIRON

88 89

420
1024
135V

14.750
13.750

BOOK 187
PAGE 1

3.

269 479383

8222

•

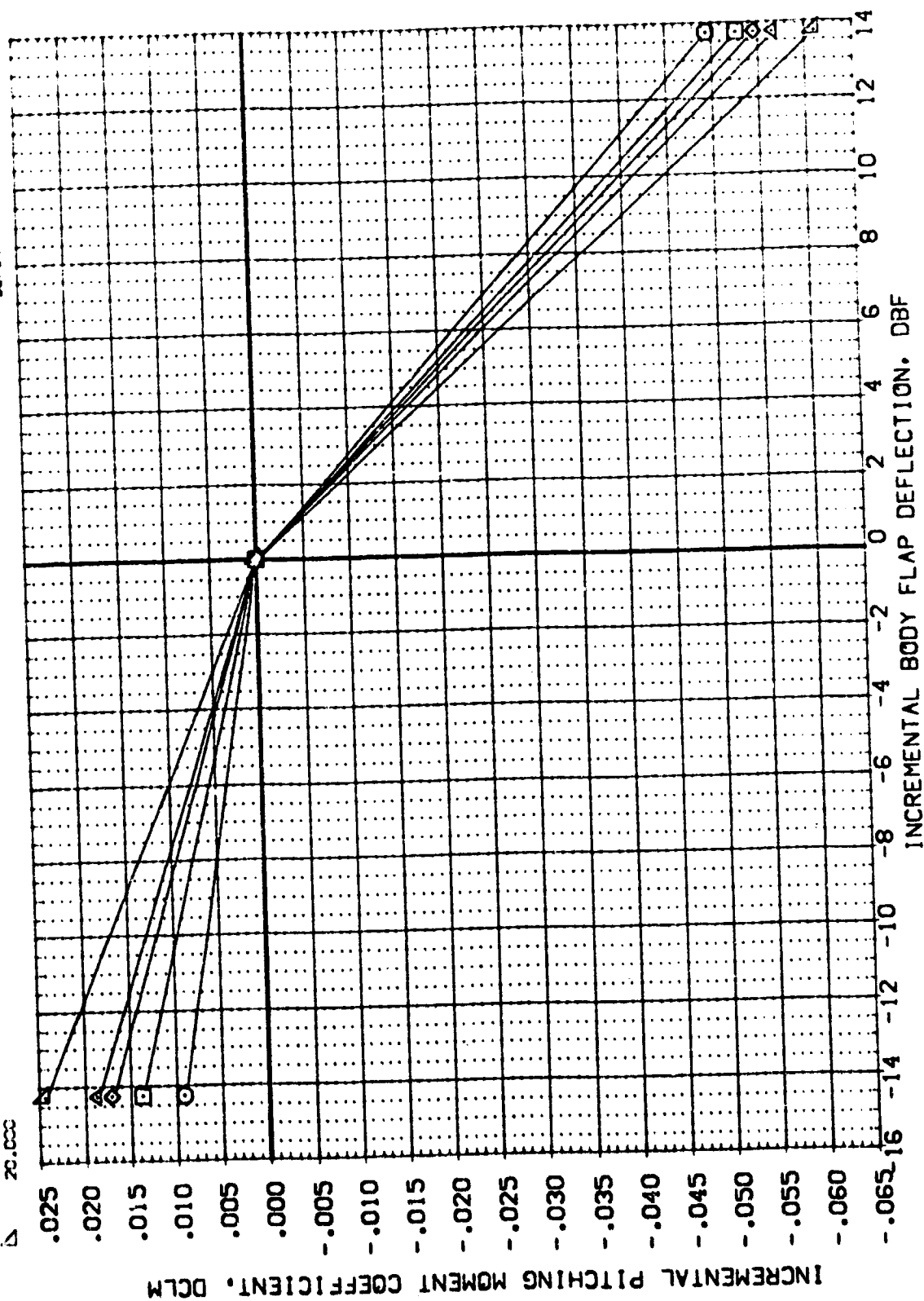


FIG. 33
INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

MSFC 574(CA48) ORB 139B

REFERENCE INFORMATION

2690 0700
474 8000
936 7000
898 7000
0000
0000
0010

2777777

SCALE

88.



700837

DATE

250
750

DATE ~~08~~ -14-13

17024
 17027

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37	000

99.

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ERIC VAL
BETA
AILE

PARAMETER
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 .000
 .990

PAF
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999

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LEVTR
DORAM

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53
54

U.P.A.

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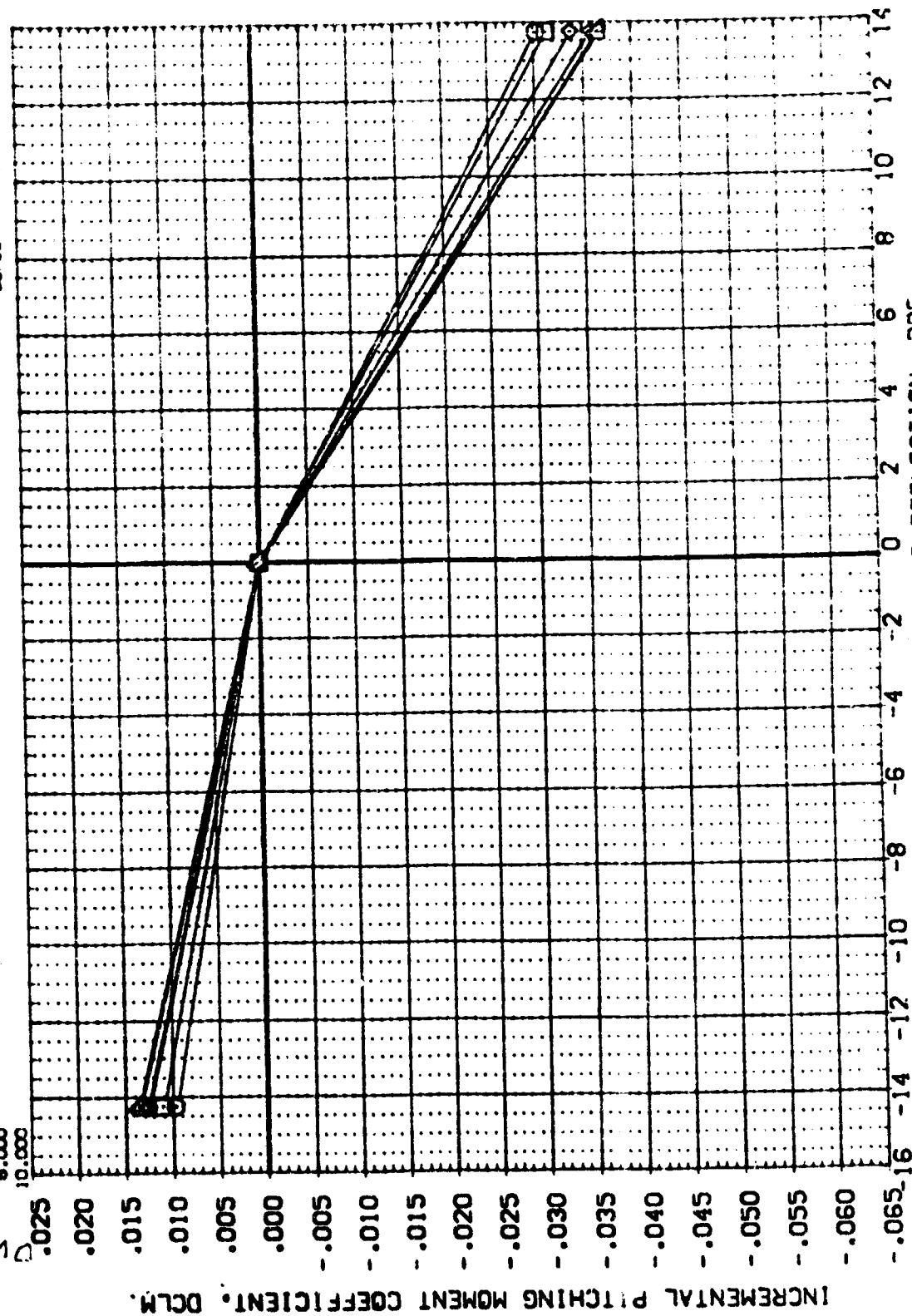
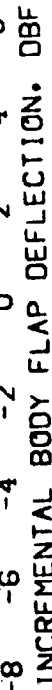


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 1398

REFERENCE INFORMATION



PAGE 114C

MSFC 574(0A48) CR3 : 393

REFERENCE IN OPERATIONS

DATA SOURCE	DATASET	DBF	SPEF
DBF	L87008	DBF	REF
-14.750		.000	REF
:3.750			AMP
			YAMP
			ZAMP
			SCALE

L00C DASET
L00C L87024
L87027

PARAMETRIC VALUES

1.960	BETA
.000	ALPHA
999.990	

ALPHA	MACH	ELEVIR	SPOBRK
.000			
2.000			
4.000			
6.000			

001000

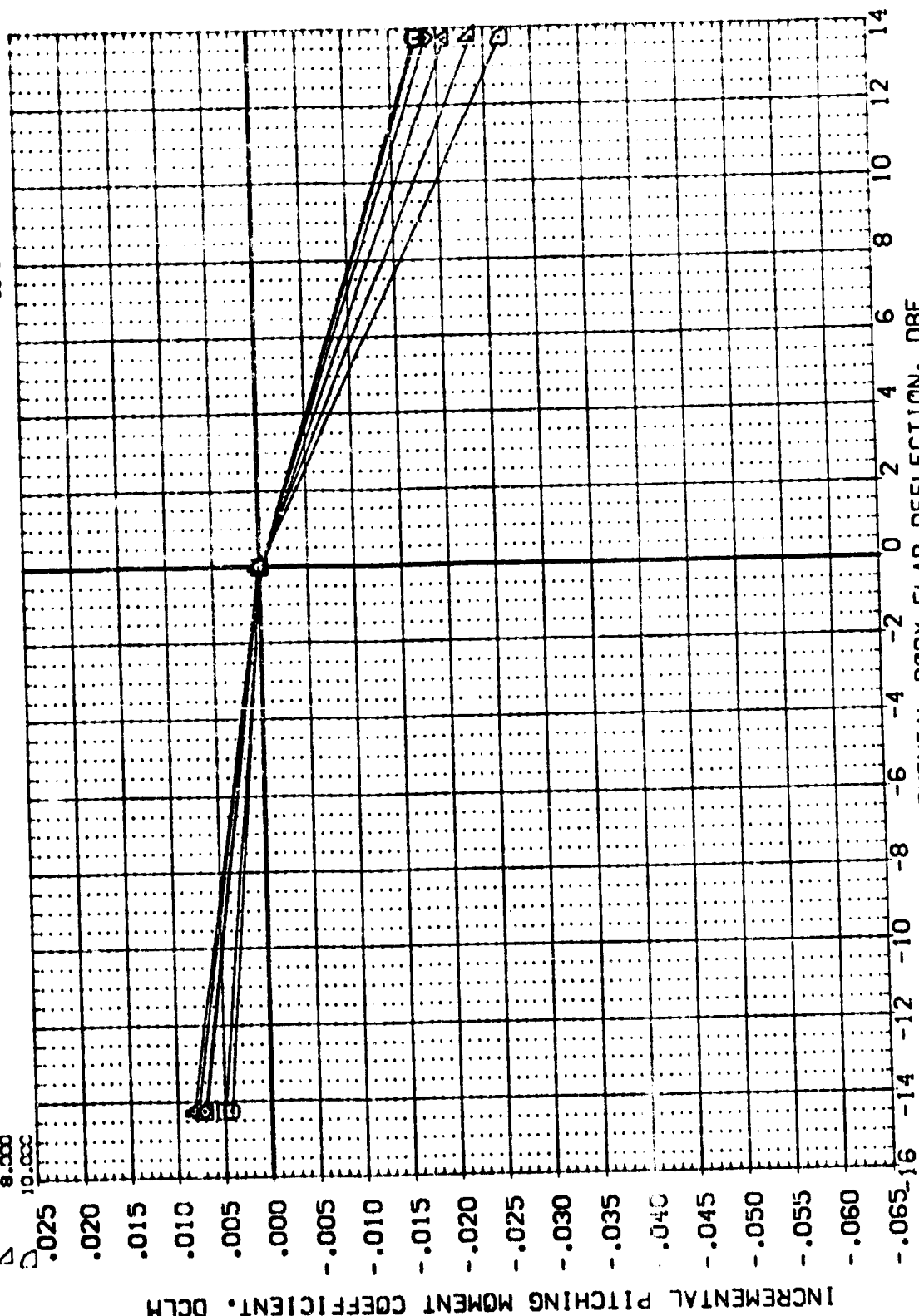


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

(L87024)

MSFC 574(0A48) ORB 139B

SYMBOL	ALPHA	MACH	ELEVTR	SPOBRK	PARAMETRIC VALUES	DATA SOURCE	DATASET	DBF	SCALE
□	12.000				BETA				
◇	14.000				ALLRON				
△	16.000								
▽	18.000								
▽	20.000								

REFERENCE INFORMATION

SREF	259C.0000
LREF	474.8000
BREF	936.7000
XREF	838.7000
YREF	.0000
ZREF	.0000
SCALE	.0040

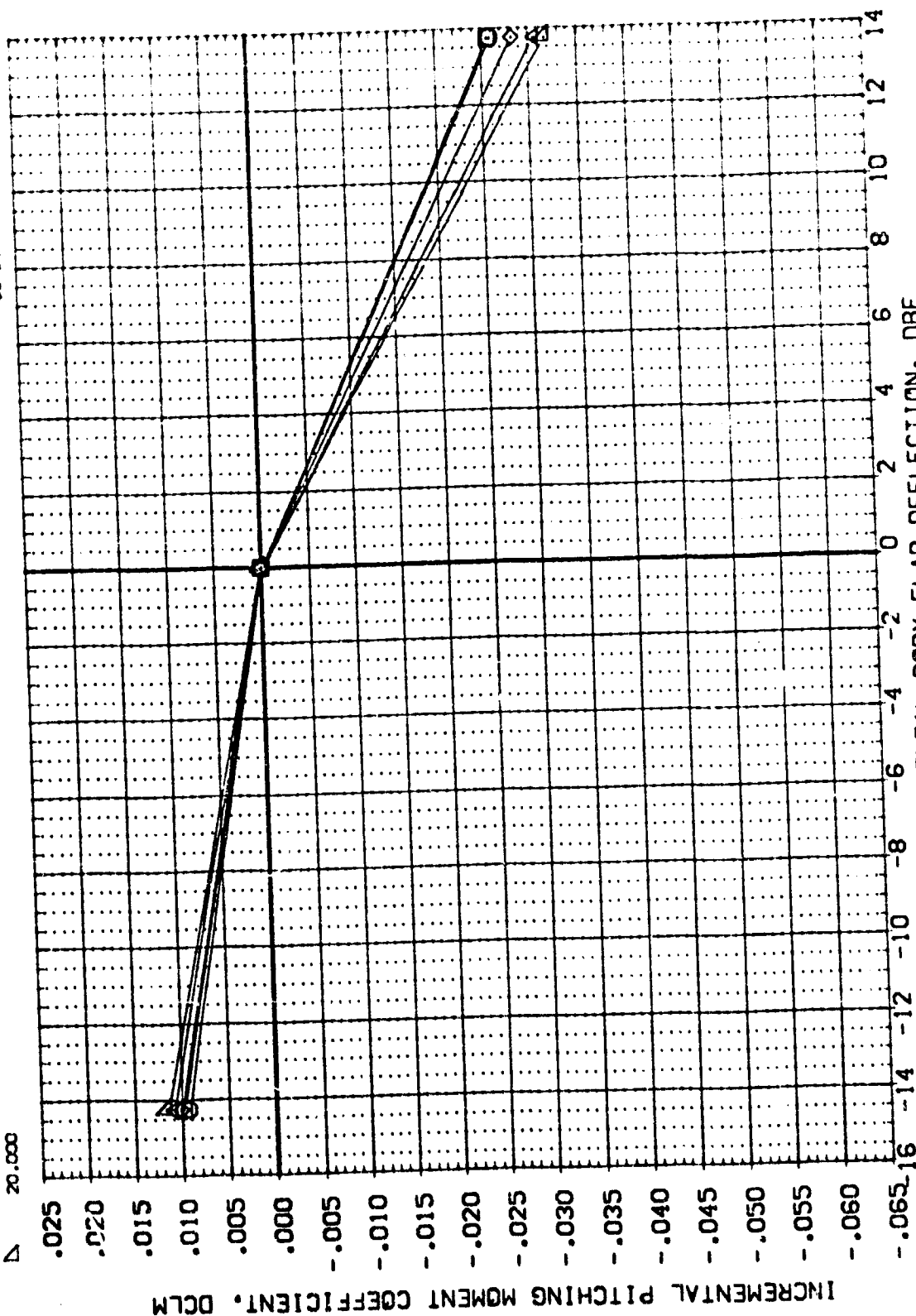


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

VSFC 574(CA48) CRB 139B (L87024)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	MACH	DBF	DBF	SREF	SO.F.
.000	2.990	DBF	.000	2690.0000	N.
2.000	ELEVTR	L87024	L87008	LREF	N.
4.000	SPC39K	.000	L87027	PRET	N.
6.000				XREF	N.
8.000				YREF	N.
10.000				SCALE	.0010

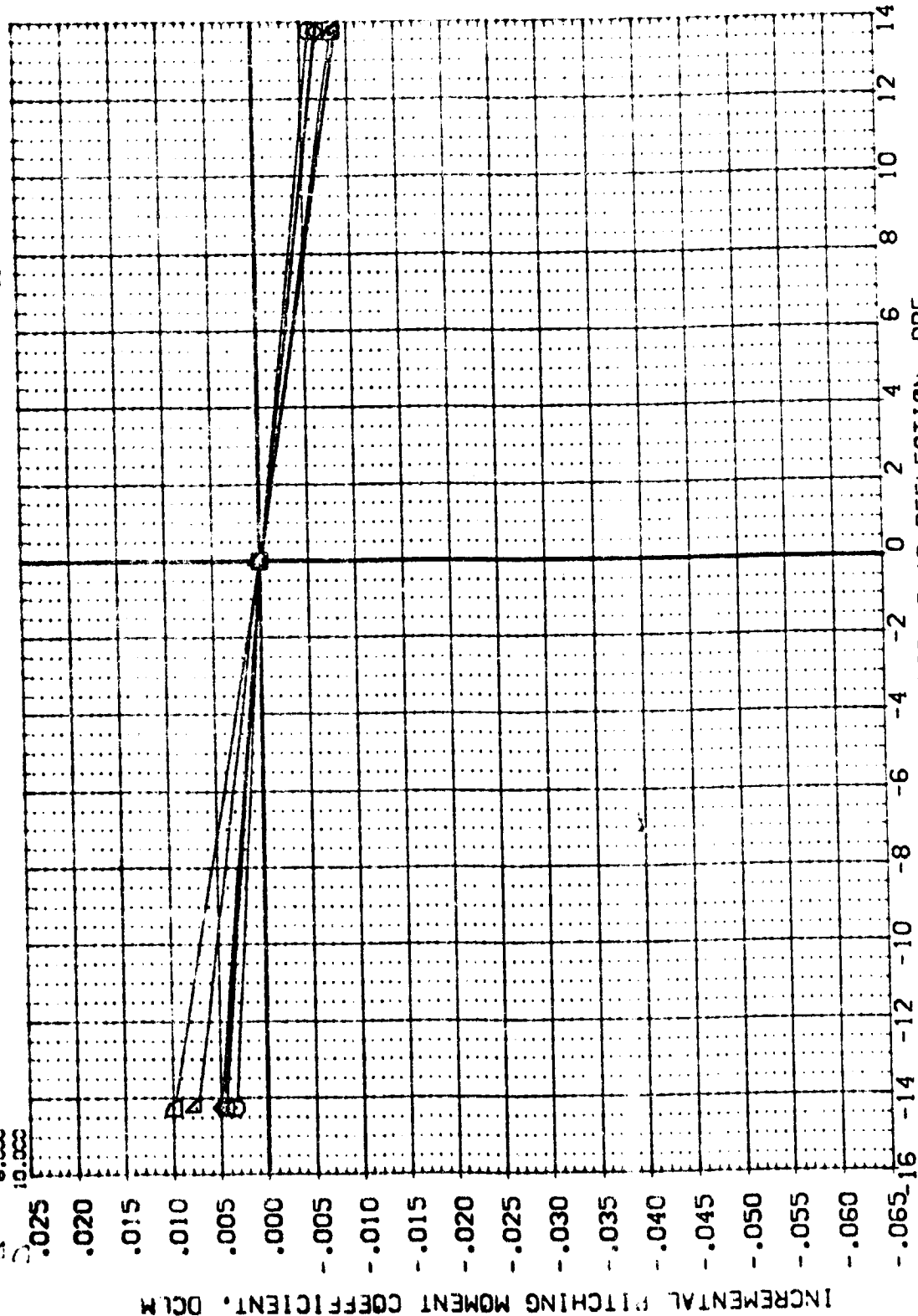


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

(L87024)

MSFC 574(0A48) ORB 139B

REFERENCE INFORMATION
SREF 2650.0000
LREF 474.8000
BREF 936.7000
XREF 838.7000
YREF 0.0000
ZREF 0.0000
SCALE .0040

DATA SOURCE
DBF -14.250
13.750

DATASET
L87024
L87027

PARAMETRIC VALUES
MACH 2.990
ELEVTR .000
SPCRK 999.990

ALPHA
12.000
14.000
16.000
18.000
20.000

BETA
0.000
0.000
0.000
0.000
0.000

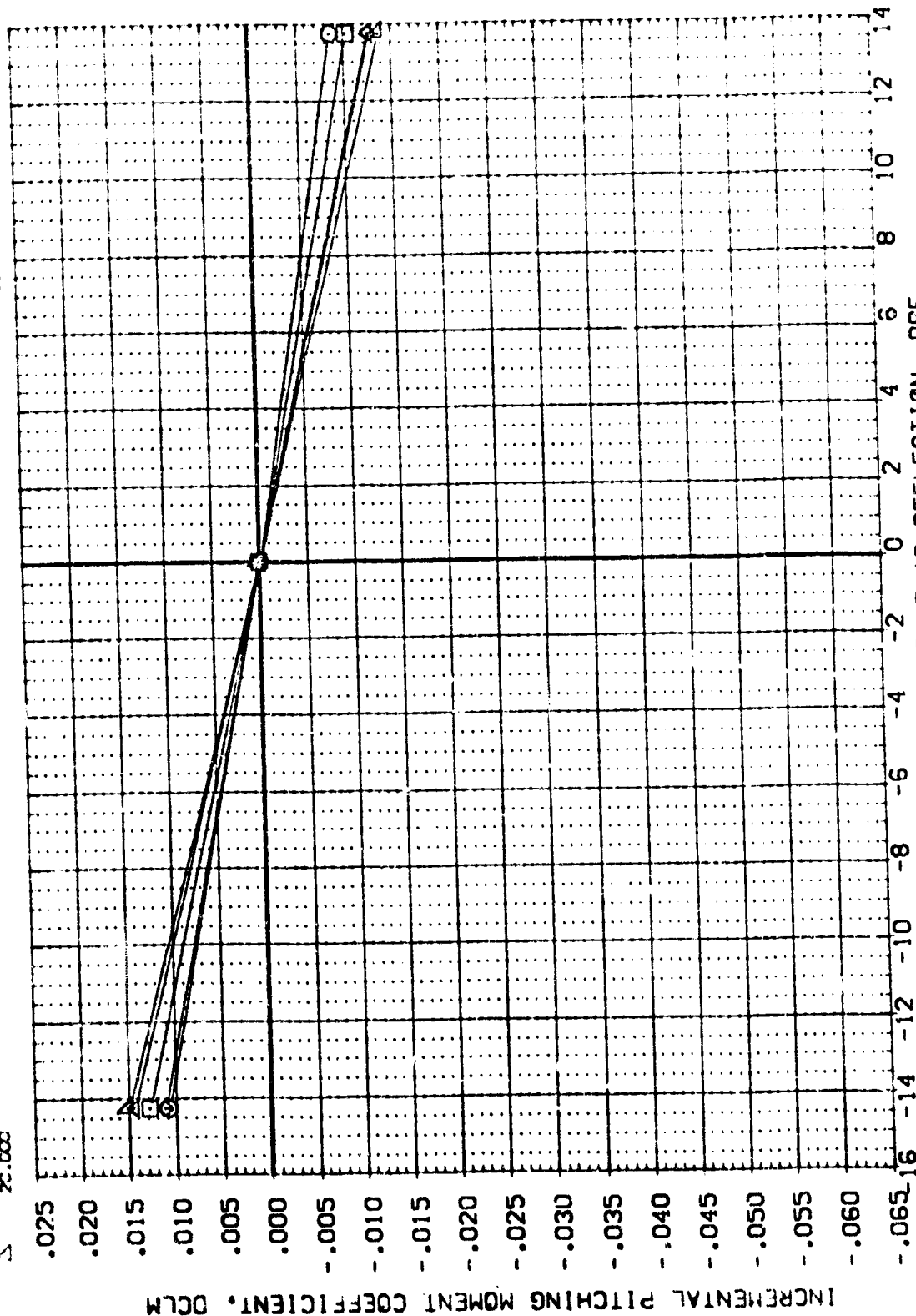


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

YSFC 574 (DA48) ORB 1398

(L87024)

REFERENCE INFORMATION

3725
2720
2710
2700
2690
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1120
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1100
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1080
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1030
1020
1010
1000
990
980
970
960
950
940
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920
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900
890
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870
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850
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830
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770
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260
250
240
230
220
210
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0

DATA SOURCE
-14.250
13.750

.000 DATASET
.000 L97024
L97027

PARAMETRIC VALUES
4.960 BETA
.000 ALPHA
999.990

14-00000
 14-00000
 14-00000

ALPHA
0.000
2.000
4.000

OLIO

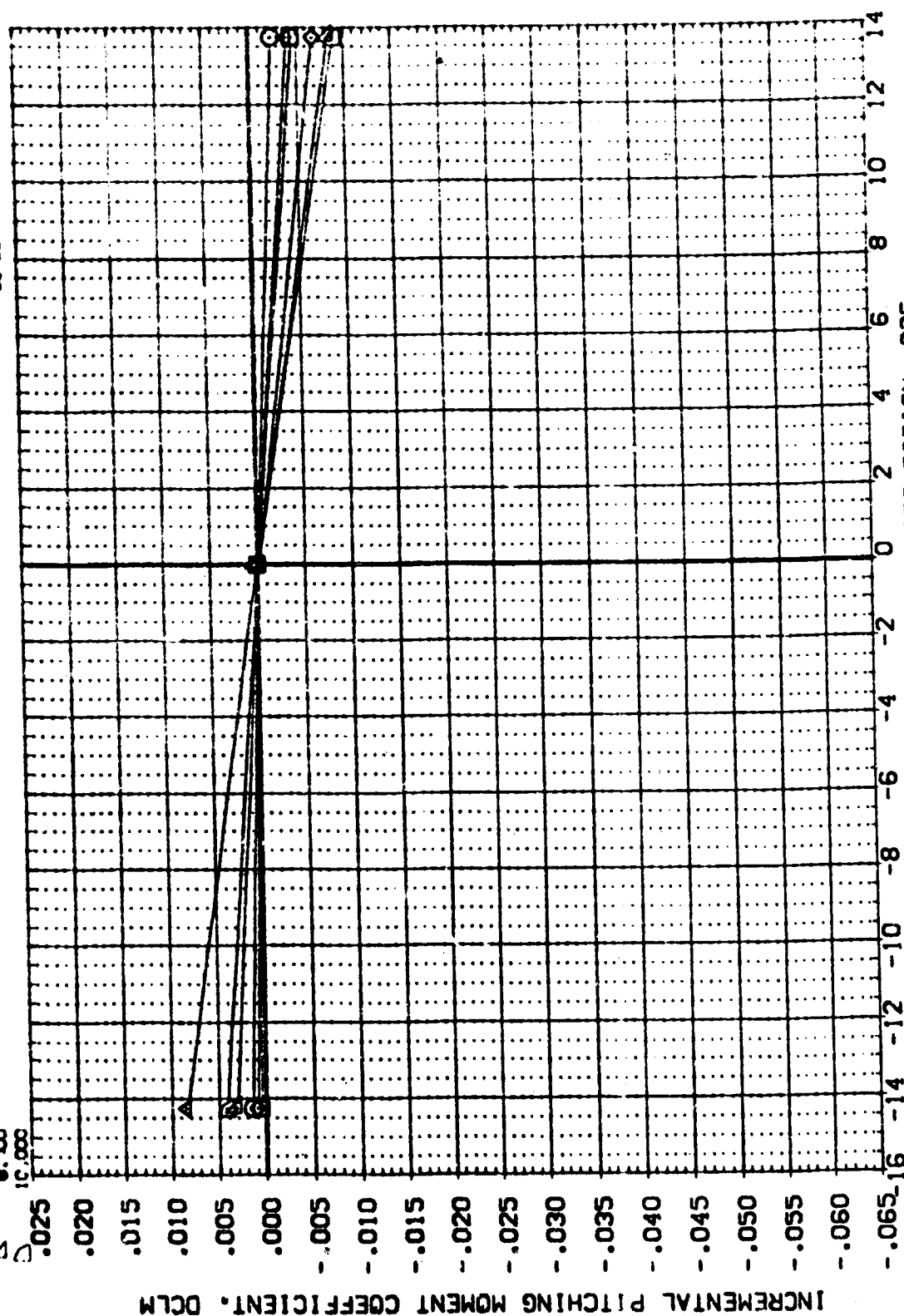


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

(L87025)

REFERENCE INFORMATION

SCALE
ZERO
ONE
TWO
THREE
FOUR
FIVE
SIX
SEVEN
EIGHT
NINE
TEN

DATA SOURCE

1,000 DATASET
1,000 L97025
1,000 L97028

PARAMETRIC VALUES
BETA
2.990
AIRLON
.000
999.990

ALPHA	20.000	MACH
	22.000	ELEVTR
	24.000	SPOBRK

5780 O[.]

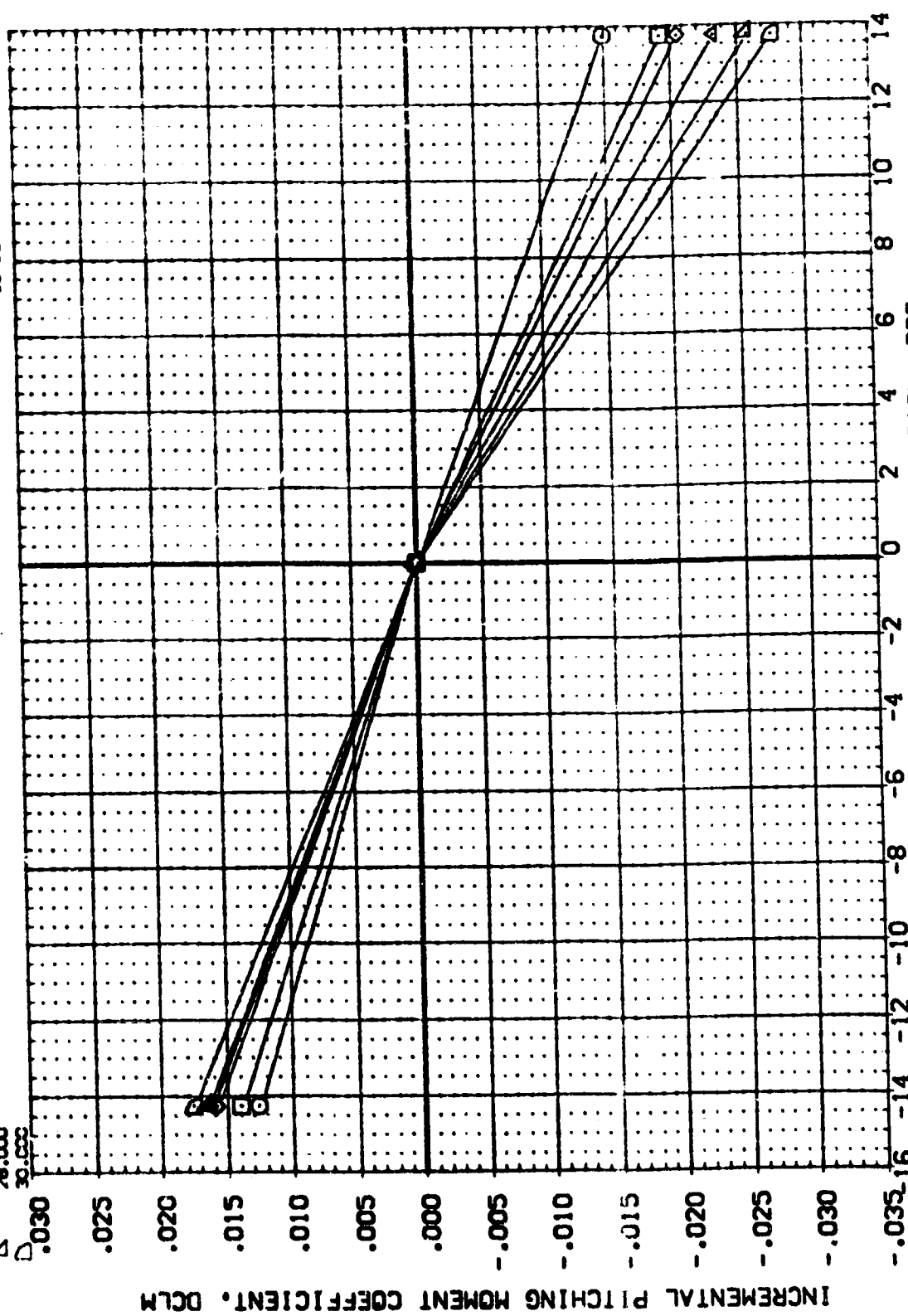


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

YSEC 574(0A48) DRB 139B

MSFC 574(0A48) UR5 135B									
SYMBOL	ALPHA	PARAMETRIC VALUES			DATA SOURCE		DATASET	DBF	SCALE
		MACH	BETA	ELEVTR	DBF	DATASET			
010	32.000		2.990						
020	34.000		.000	A LRON	-14.250	187009	.000		
030	36.000		999.99C		13.750				
040	38.000			SPDBRK					
050	40.000								

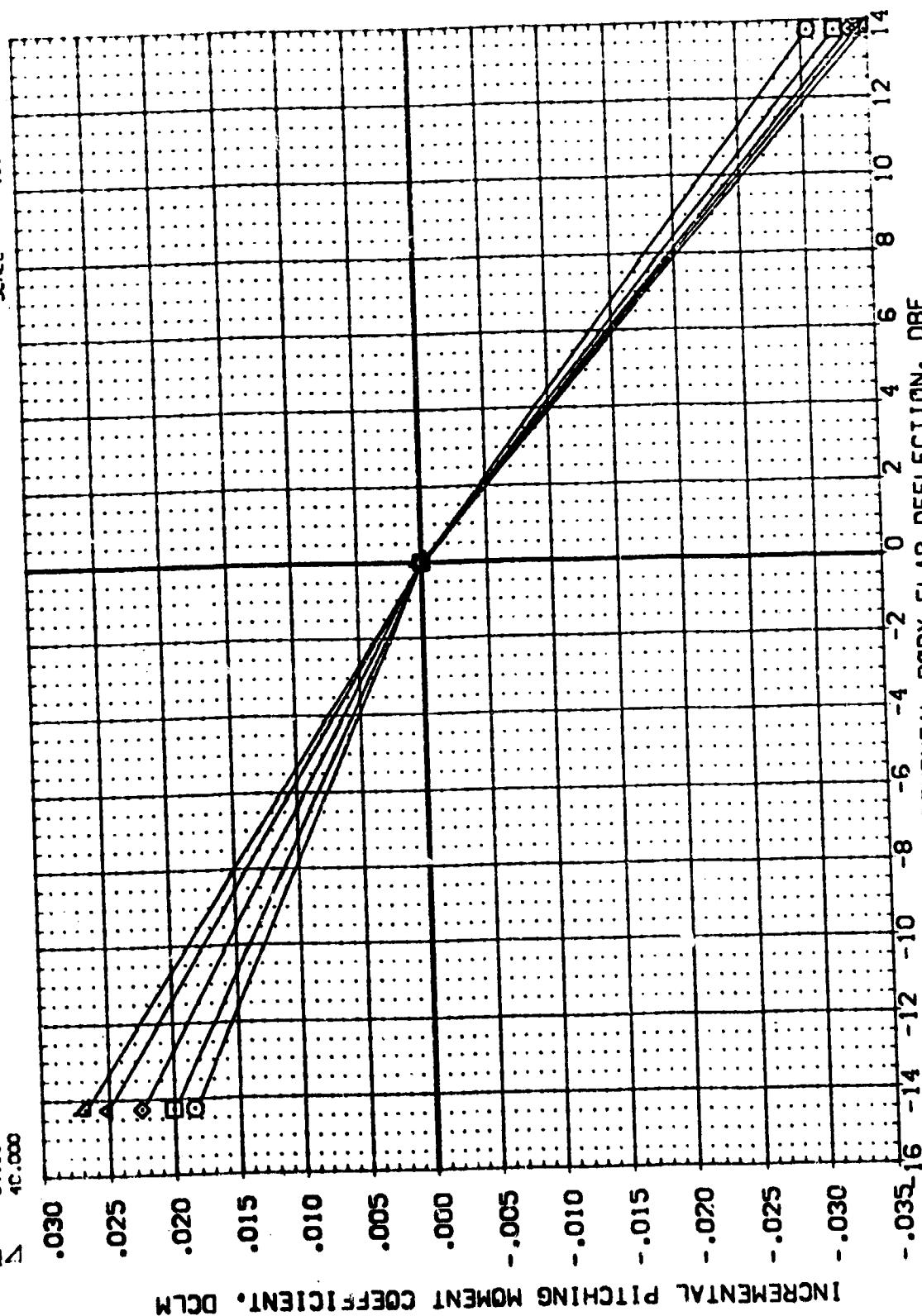


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

(L87025)

MSFC 574(CA48) ORB 139B

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	MACH	DB	DB	SREF	SCALE
20.000	4.960	.000	.000	2690.0000	.0001
22.000	.000	L87025	L87009	471.8000	
24.000	999.990	.000		936.7000	
26.000		L87026		838.7000	
28.000				.0000	
30.000				.0000	

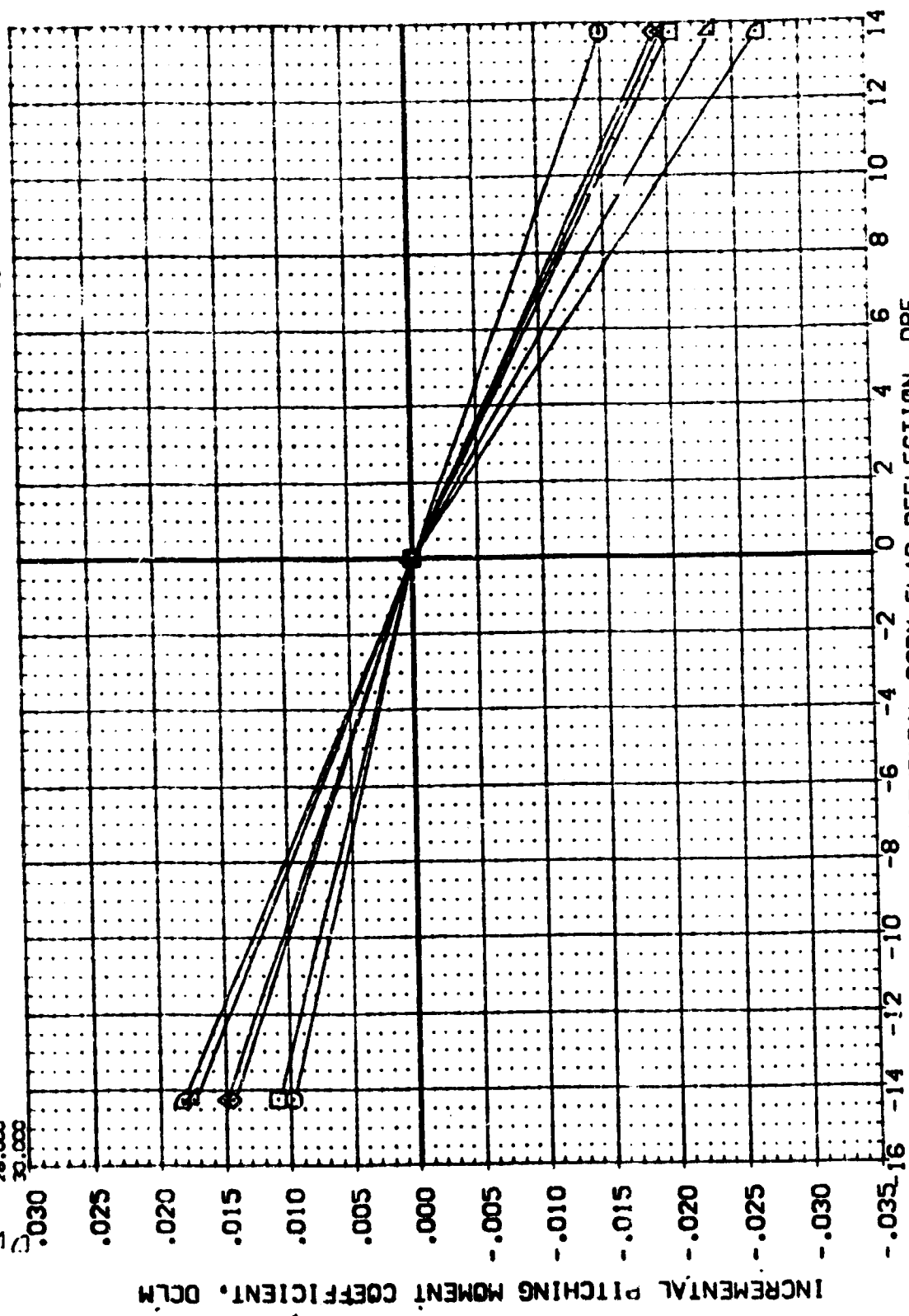


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

MS=C 574(CA48) GRB 139B

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	DBF	DATASET	DBF	SCALE
00	32.000	MACH 4.960	DBF	-14.250	L87025	DBF	2690.0000
01	34.000	ELEVTR .000		13.750	L87025		474.0000
02	36.000	SPDBRK 999.990			L87028		936.0000
03	38.000						936.0000
04							838.0000
05							0.0000
06							0.0000
07							0.0000
08							0.0000
09							0.0000
10							0.0000
11							0.0000
12							0.0000
13							0.0000
14							0.0000
15							0.0000
16							0.0000
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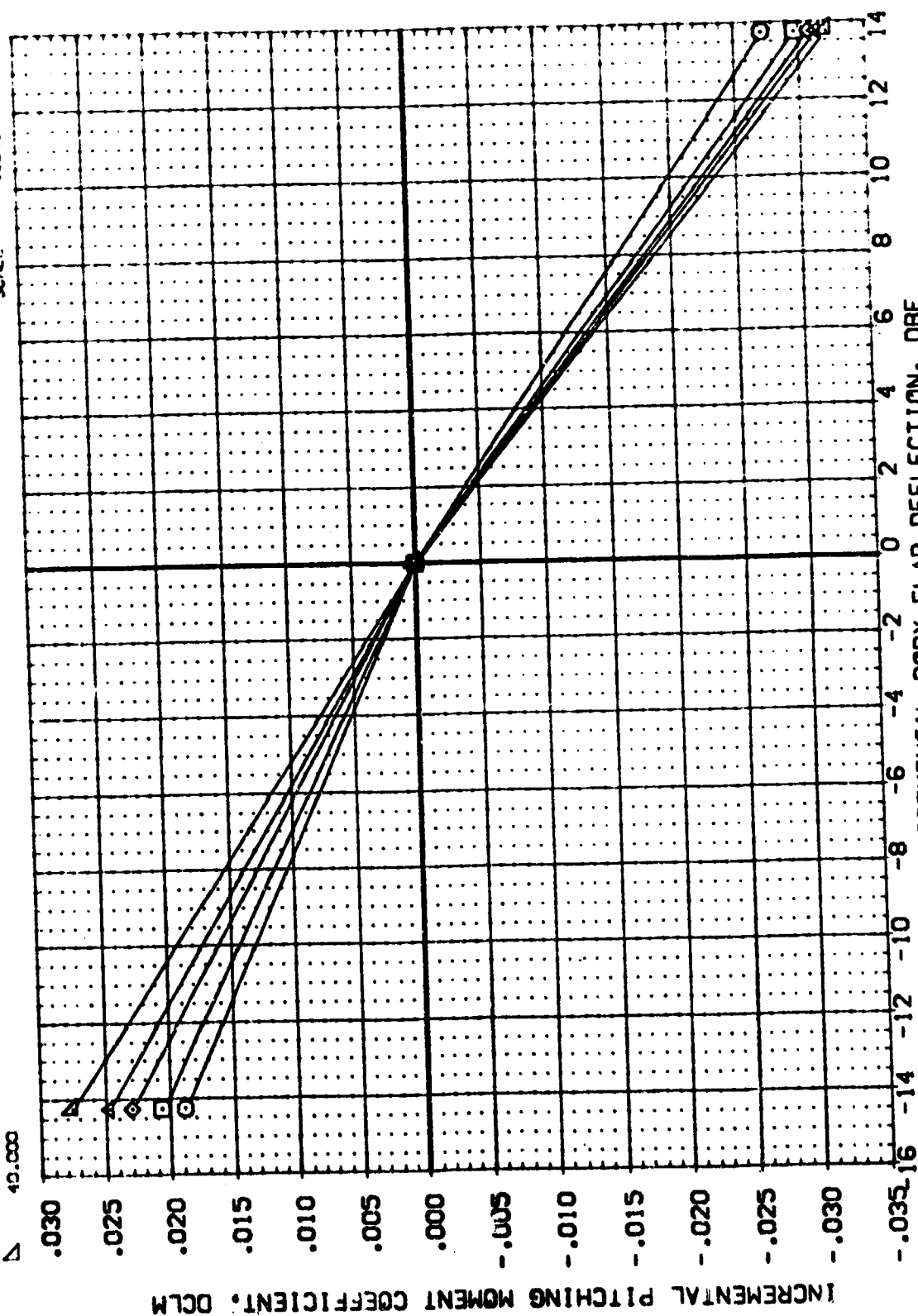


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

(L87026)

MSFC 574(0A48) ORB 139B

REFERENCE INFORMATION
 SREF 2690.0000
 LREF 474.8000
 EREF 936.7000
 XREF 838.7000
 YREF .0000
 ZREF .0000
 SCALE .0040

DATA SOURCE
 DBF .000
 DATASET L87030

.000 DATASET
 .000 L87026
 .000 L87029

PARAMETRIC VALUES
 MACH 4.960
 BETA .000
 AILRON 999.960

SYMBOL
 40.000
 42.000
 44.000
 46.000
 48.000
 50.000

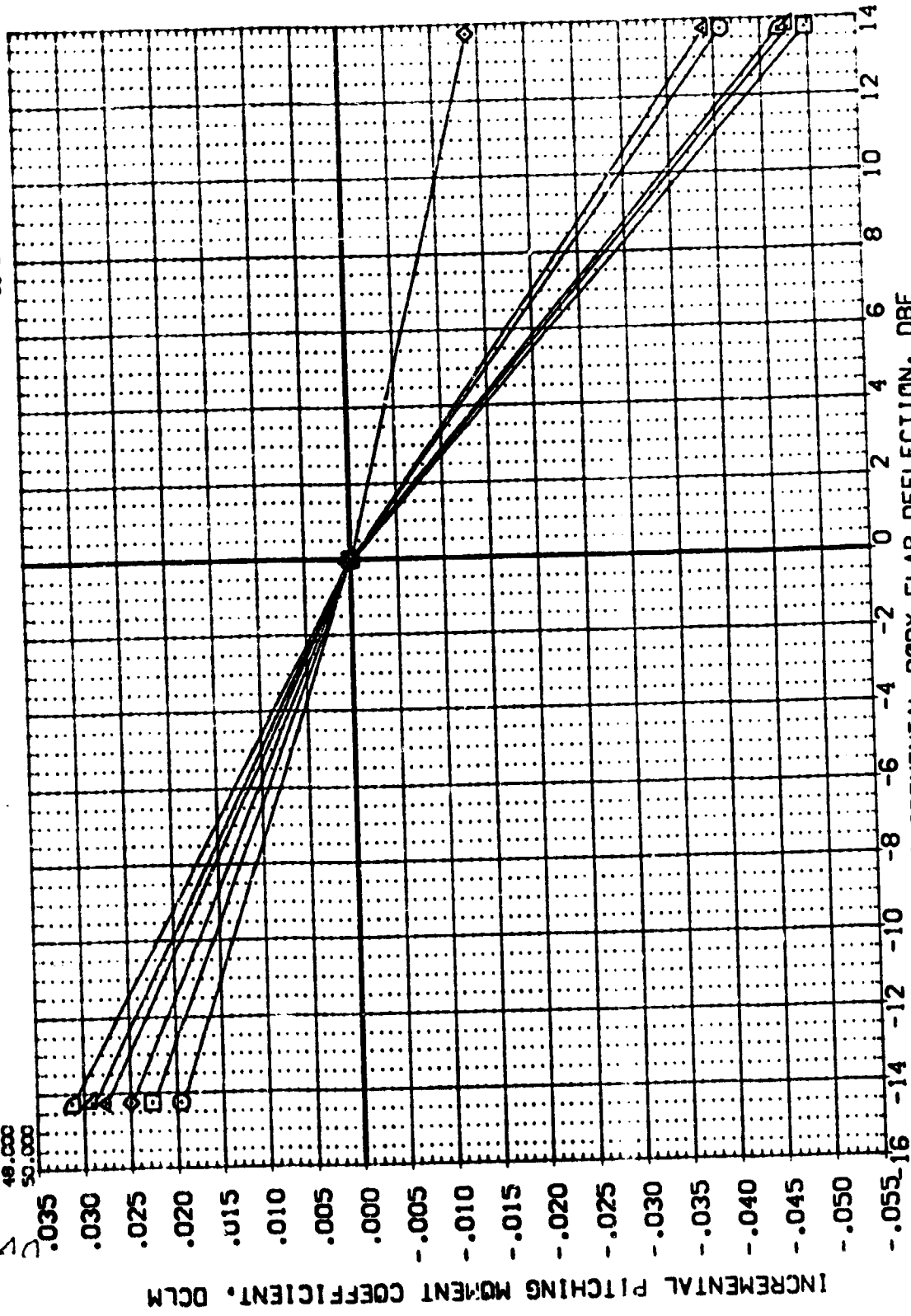


FIG. 33 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

MSFC 574(CA48) CRB 1393

REFERENCE INFORMATION

DATA SOURCE	DATASET	DBF	SREF
	L87030	.000	LREF
			BREF
			XREF
			YREF
			ZREF
			SCALE

0.000 DATASET
0.000 L87C26
0.000 L87C29

PARAMETRIC VALUES
1.960 BETA
.000 AIRLON
999.990

MACH
ELEV:R
SPDRM

ALPHA
52.000
54.000
56.000
58.000
60.000

SYNOPSIS (111044)

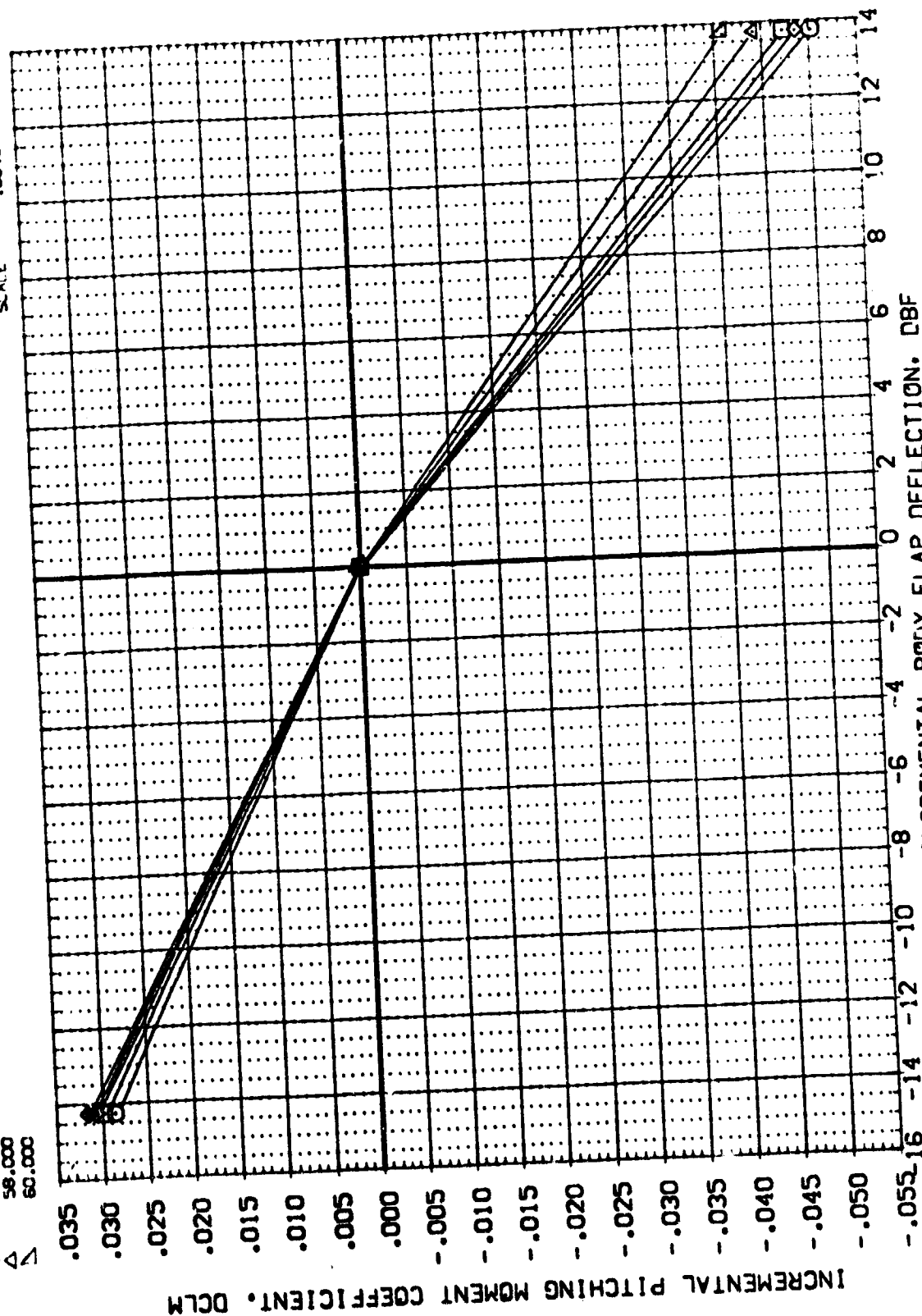


FIG. 33
INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B

VSFC 574(0A48) 3R3 :393 (F6) (L87101)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	MACH	DBF	DBF	SREF	SC.F.T.
.000	2.950	.000	.000	2690.0000	474.8000
2.000	.000	L87101	L87105	REF	936.7000
4.000	999.990	13.750		YREF	838.7000
6.000				YREF	.0000
8.000				YREF	.0000
10.000				SCALE	.0040

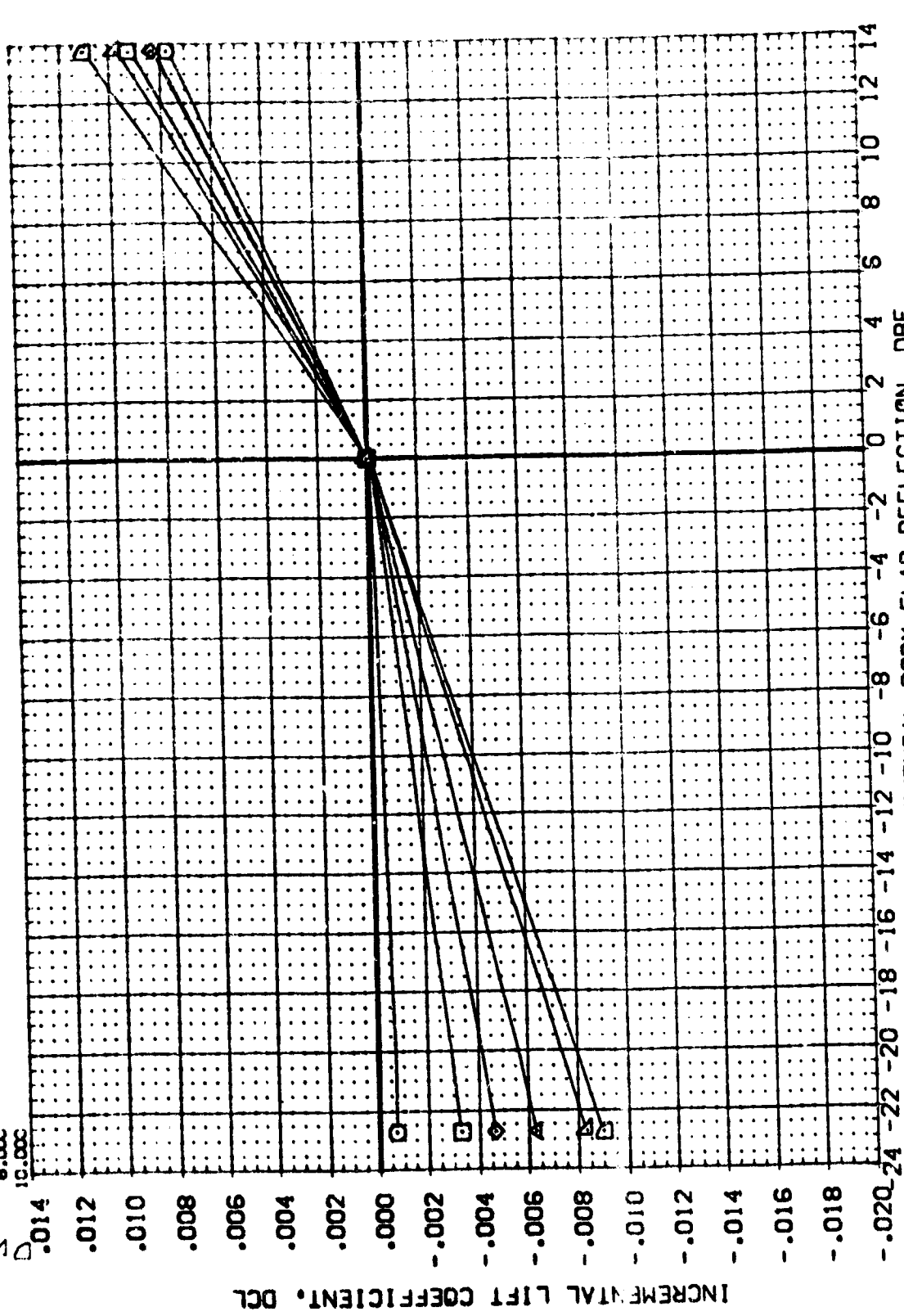


FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 139B
 INCREMENTAL BODY FLAP DEFLECTION, DBF
 PAGE 1153

(L87101)

MSFC 574(0A48) ORB 139B (F6)

SYMBOL		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
□	ALPHA	MACH	BETA	DBF	DBF	SREF	SCAL
□	12.000	2.950	.000	-22.750	.000	474.8000	1.0000
□	14.000	ELEVTR	AILRON	13.750	L87105	936.7000	1.0000
□	16.000	SPOBRK	999.99C		L87101	838.7000	1.0000
□	18.000				L87102	.0000	1.0000
□	20.000					ZMRP	.0040
						SCALE	

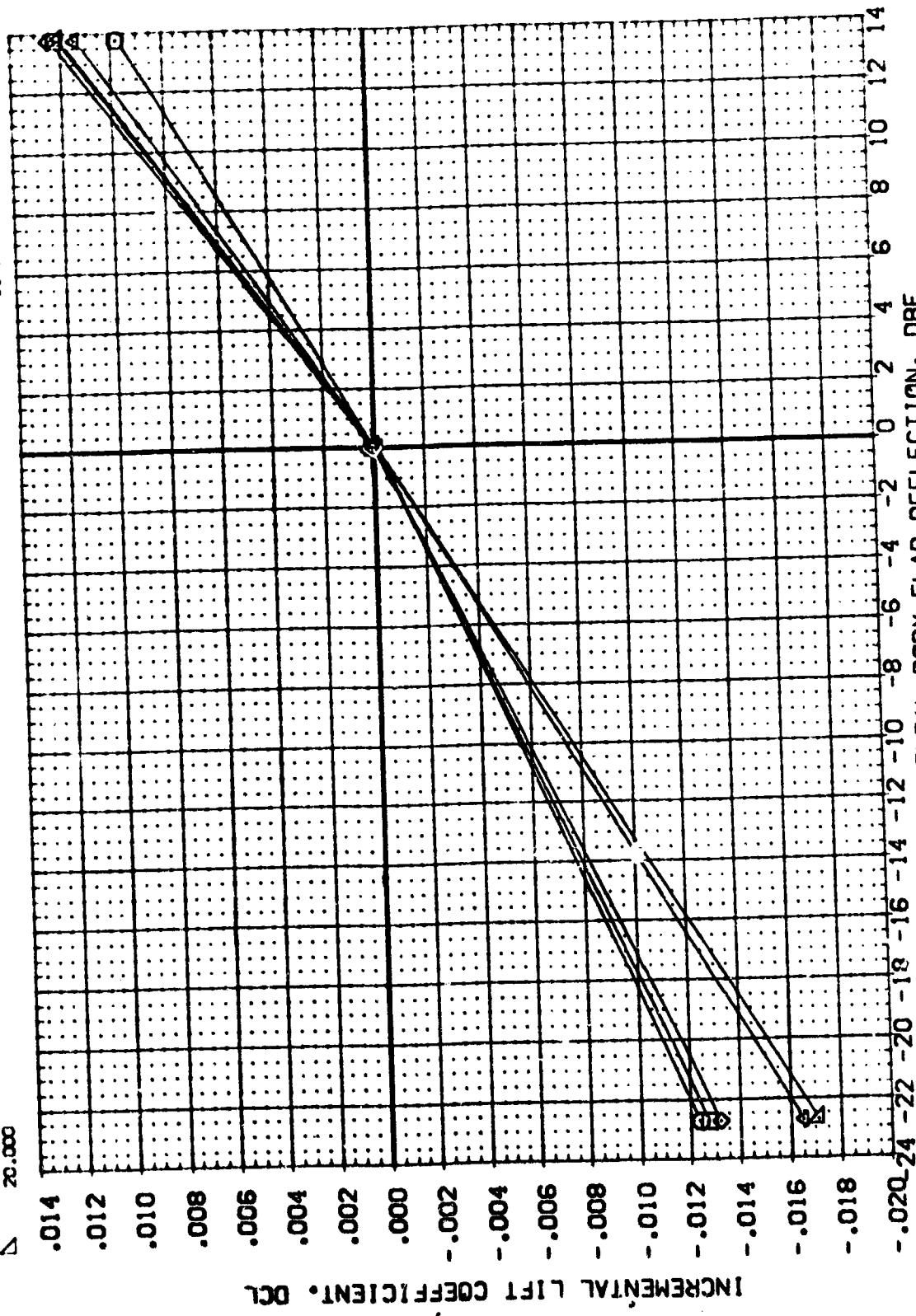


FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 139B

PAGE 1154

VSFC 574(0A48) ORB 139B (F6)

(L87101)

SYMBOL		ALPHA		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
0.000	0.000	MACH	4.950	BETA	0.000	DATASET	DBF	SREF	2690.0000
2.000	2.000	ELEVTR	0.000	ALLRON	0.000	L87101	DBF	LREF	474.8000
4.000	4.000	SPOBRK	999.990		0.000	L87102	DBF	BREF	936.7000
6.000	6.000				-22.750			XREF	838.7000
8.000	8.000				13.750			YREF	0.0000
10.000	10.000							ZREF	0.0000
								SCALE	0.0040

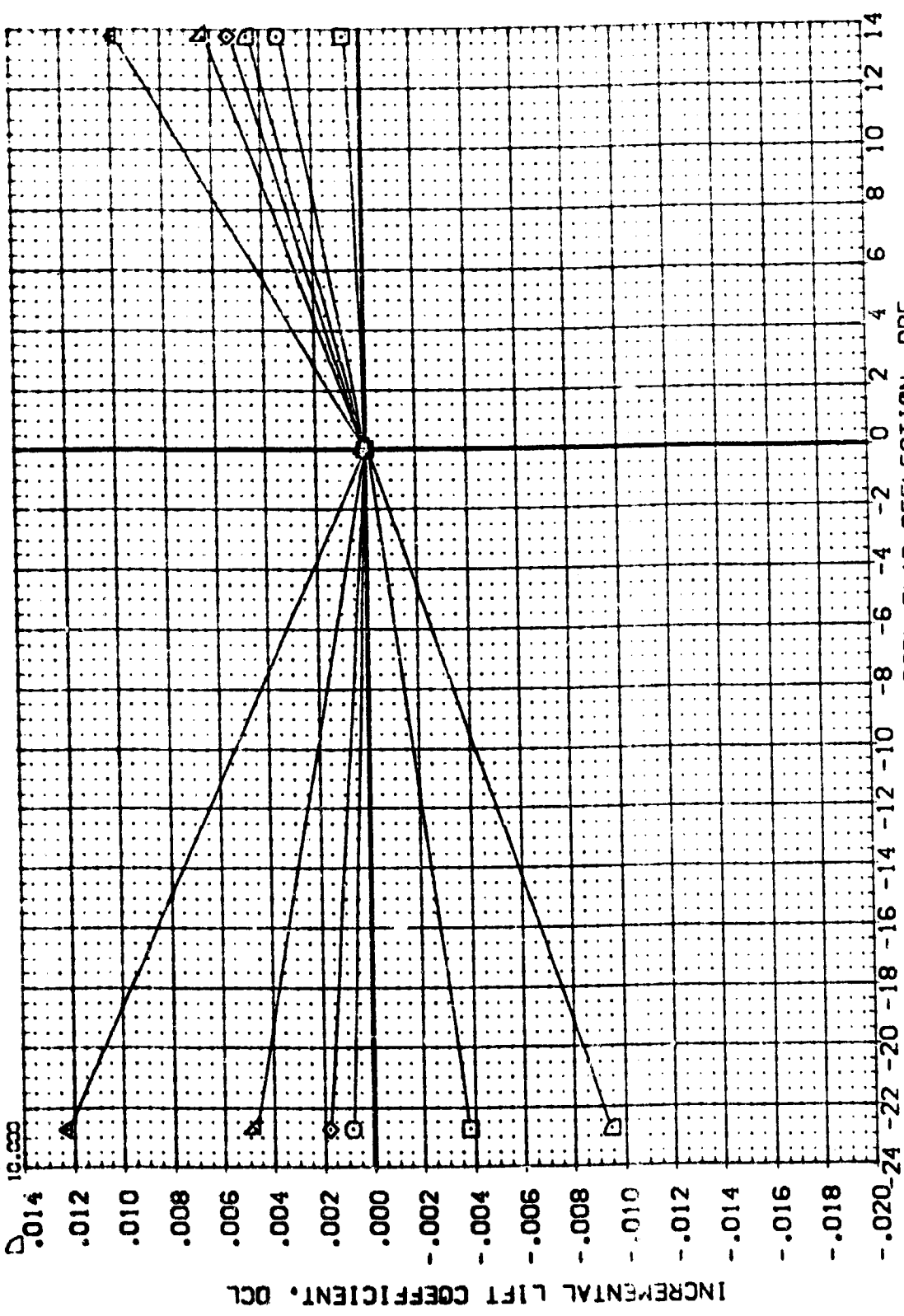


FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 139B
PAGE 1155

(L87101)

MSFC 574(0A48) ORB 139B (F6)

SYMBOL
O
◇
△
▽

ALPHA
12.000
14.000
16.000
18.000
20.000

MACH
ELEVTR
SPCRK

PARAMETRIC VALUES
1.960 BETA
.000 AILRON
999.990

.000 DATASET
.000 L87101
.000 L87102

DATA SOURCE
DBF
-22.750
13.750

DATASET DBF
L87105

SPREF
LREF
BREF
XREF
YREF
ZREF
SCALE

REFERENCE INFORMATION
2690.0000
474.8000
936.7000
836.7000
.0000
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SCALE

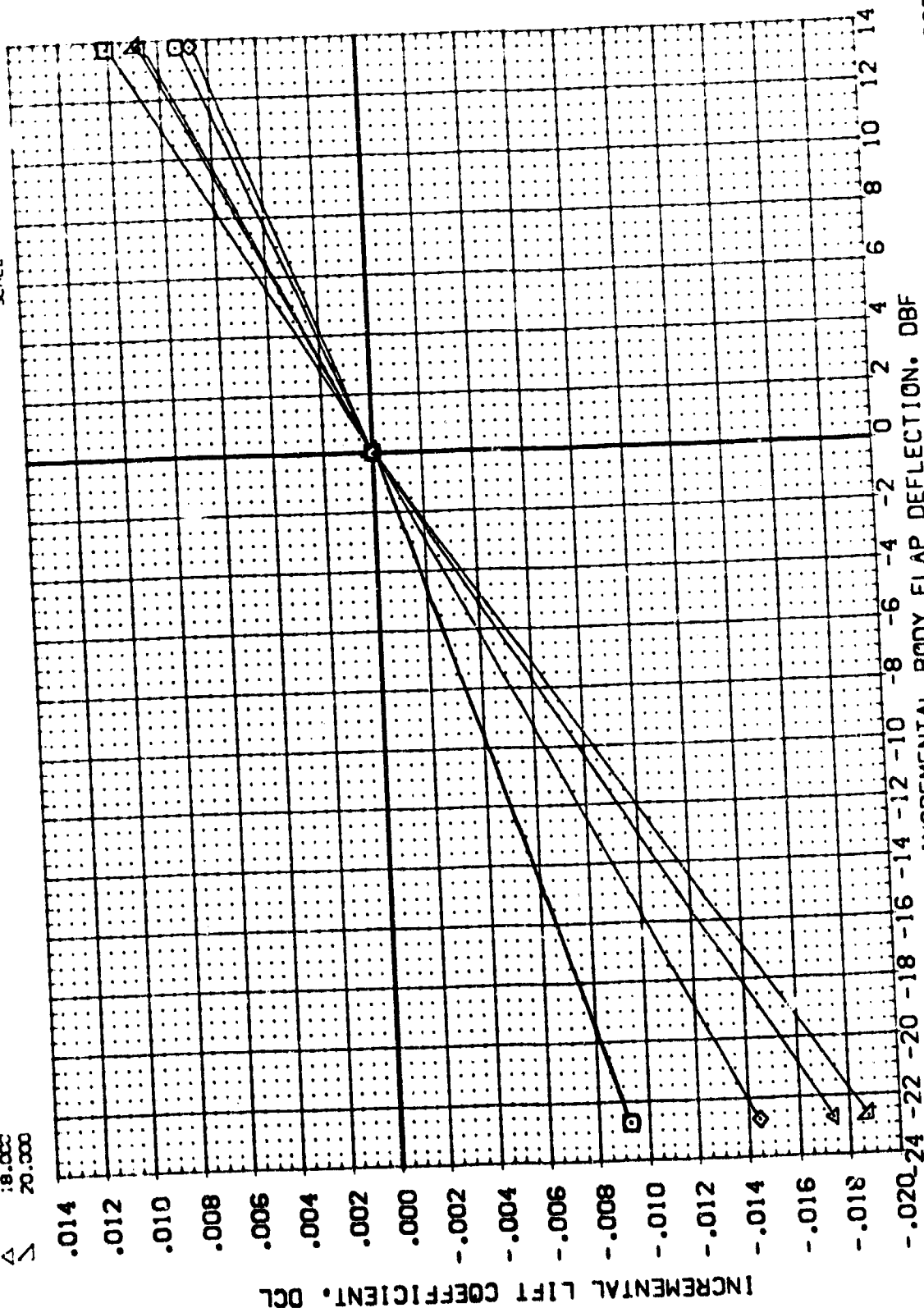


FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 139B
INCREMENTAL BODY FLAP DEFLECTION, DBF
PAGE 1156

MSFC 574(0A48) ORB 1398 (F6) (187100)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
SYMBOL	VALUE	DBF	DBF	SYMBOL	VALUE
ALPHA	20.000			SREF	2690.0000
MACH	2.990			LREF	474.8000
ELEVTR	.000			BREF	936.7000
SPOBRK	999.990			XMRP	838.7000
				YMRP	.0000
				ZMRP	.0000
				SCALE	.0010

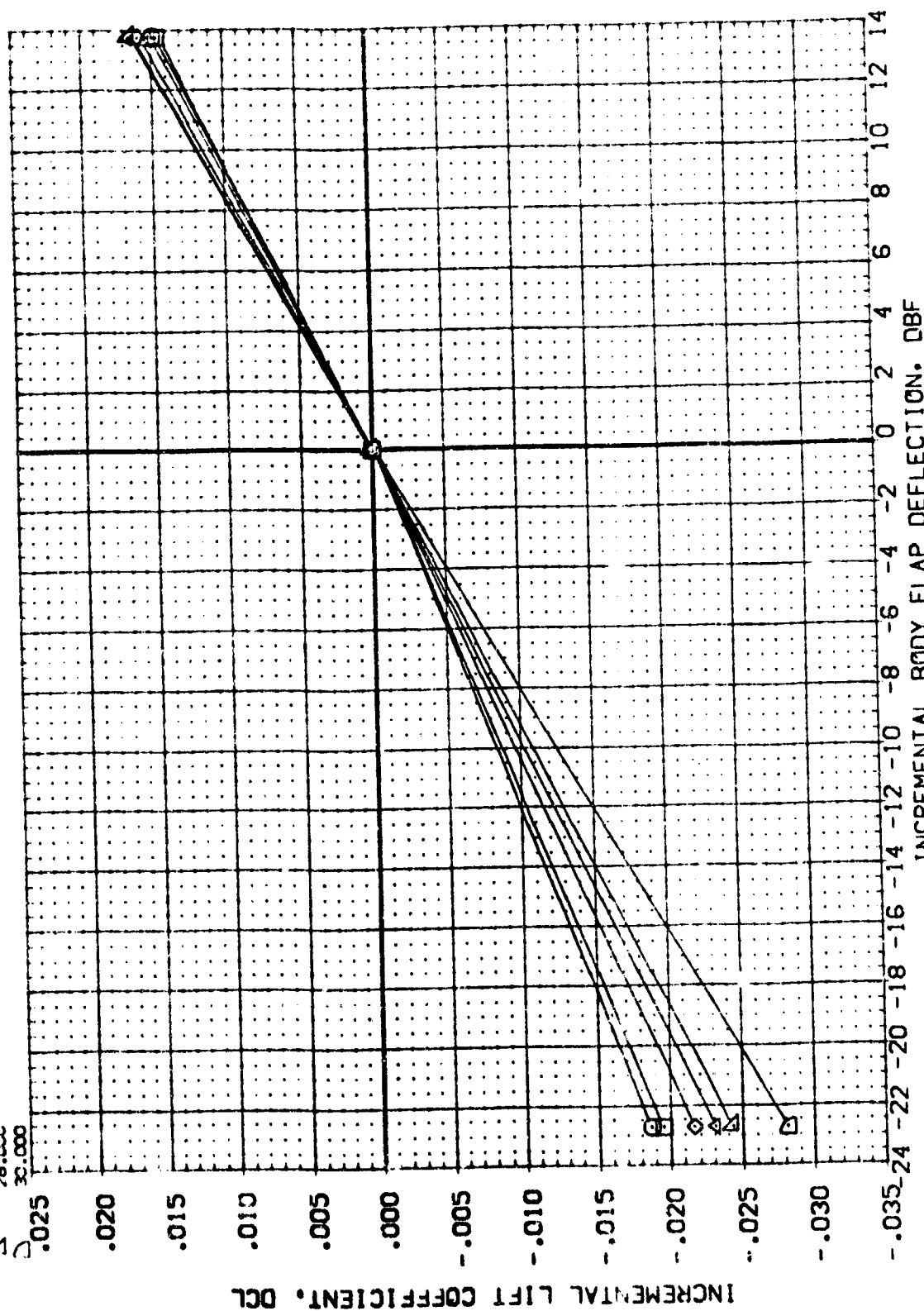


FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 1398
PAGE 1157

(L87100)

MSFC 574(0A48) ORB 139B (F6)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	.000	DATASET	DBF	DATA SOURCE	DBF	SRCF	REFERENCE INFORMATION
○	32.000	ELEVTR	2.99C BETA	.000	L87100	-22.750	L87104	.000	2690.0000	SCALF
◇	34.000	SPDBRM	.000 AILRON	.000	L87103	13.750			474.5000	SCALF
△	36.000		999.99C						936.7000	SCALF
	38.000								838.7000	SCALF
	40.000								.0000	SCALF
									.0040	SCALE

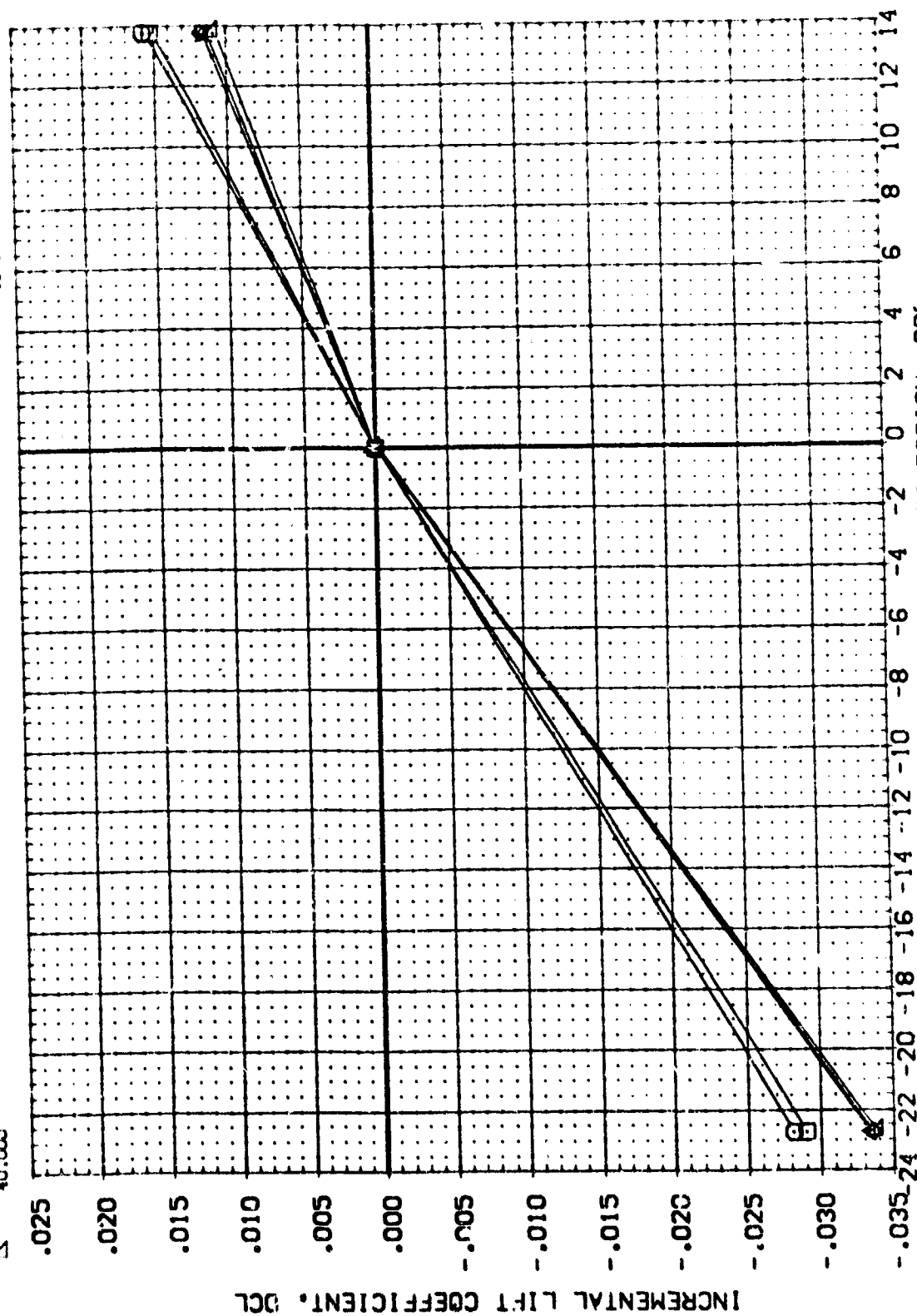
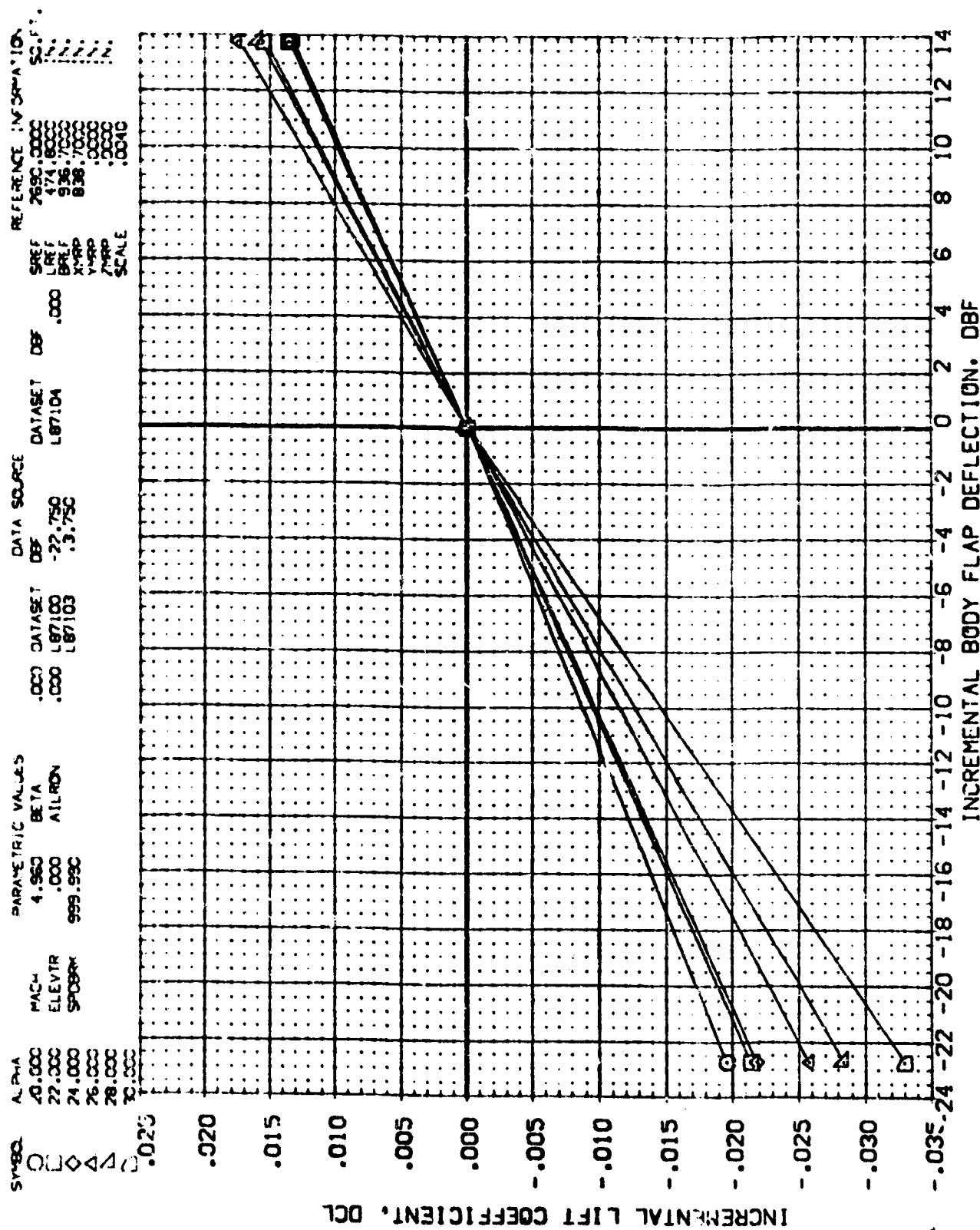


FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 139B

VS:C 574(CA48) QRE 139B (F6)

【LE7100】



(L87100)

MSFC 574(JA48) CRB 139B (F6)

REFERENCE INFORMATION
SREF 2690.0000
LREF 474.8000
BREF 535.7000
XREF 838.7000
YREF .0000
ZREF .0000
SCALE .0040

DATA SOURCE
DBF .000
DATASET L87104
DBF -22.750
13.750

DATASET
.000 L87100
.000 L87103

PARAMETRIC VALUES
BETA 4.960
A:LRN .000
999.990

PACH
ELEVTR
SPDRPK

ALPHA
32.000
34.000
36.000
38.000
40.000

SYMB.
0 1 2 3 4

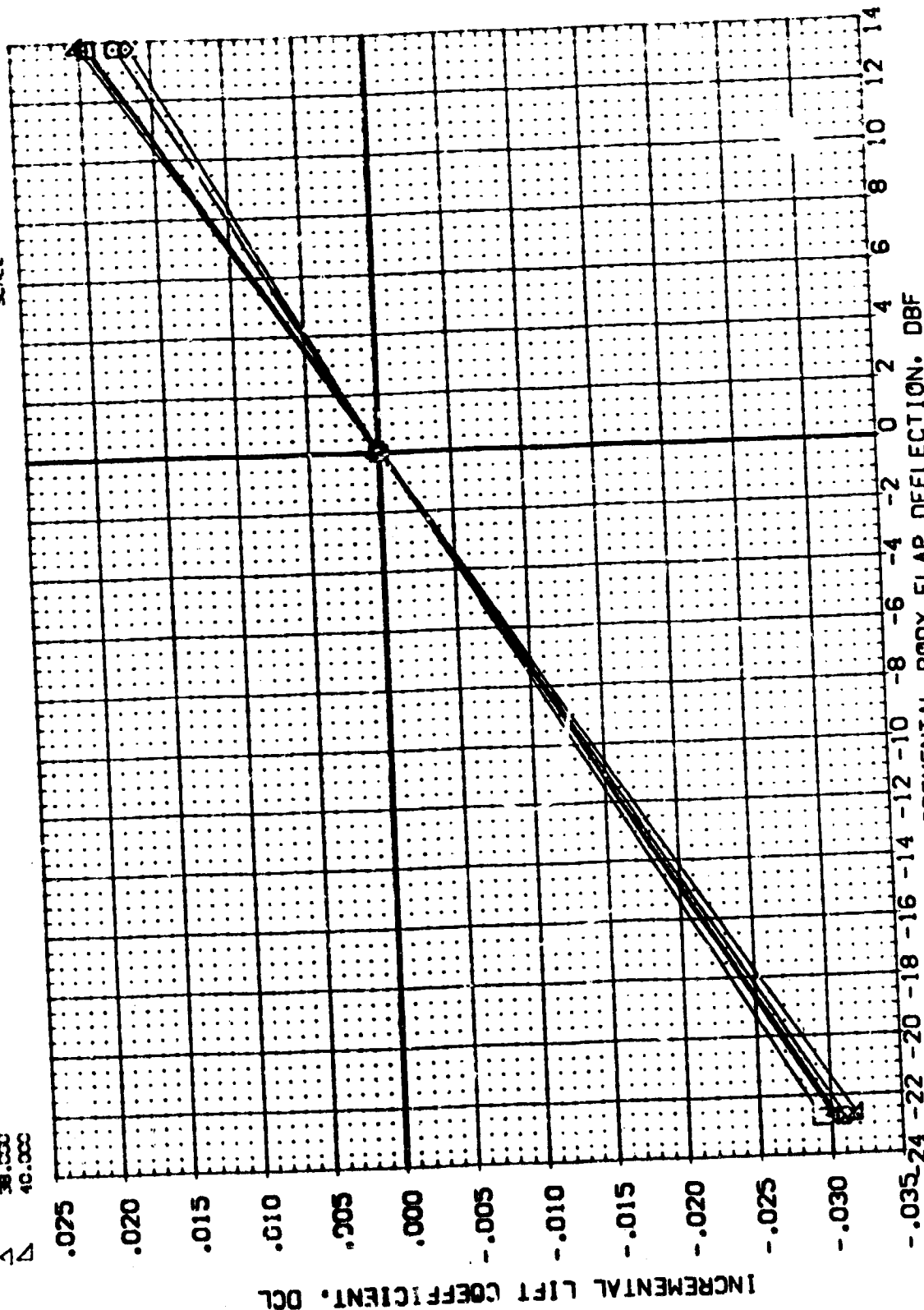


FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 139B

III

VSFC 574(0A48) ORB 139B (F6) (L87101)

SYMBOL	ALPHA	MACH	ELEVTR	SPDRK	PARAMETRIC VALUES	.000	BETA	.000	AILRON	.000	DATASET	DBF	JATASET	DBF	SREF	2580.0000	REFERENCE INFORMATION	52.57
	2.000	2.000	2.000	2.000														
	4.000	4.000	4.000	4.000														
	6.000	6.000	6.000	6.000														
	8.000	8.000	8.000	8.000														
	10.000	10.000	10.000	10.000														
	12.000	12.000	12.000	12.000														
	14.000	14.000	14.000	14.000														
	16.000	16.000	16.000	16.000														
	18.000	18.000	18.000	18.000														
	20.000	20.000	20.000	20.000														
	22.000	22.000	22.000	22.000														
	24.000	24.000	24.000	24.000														

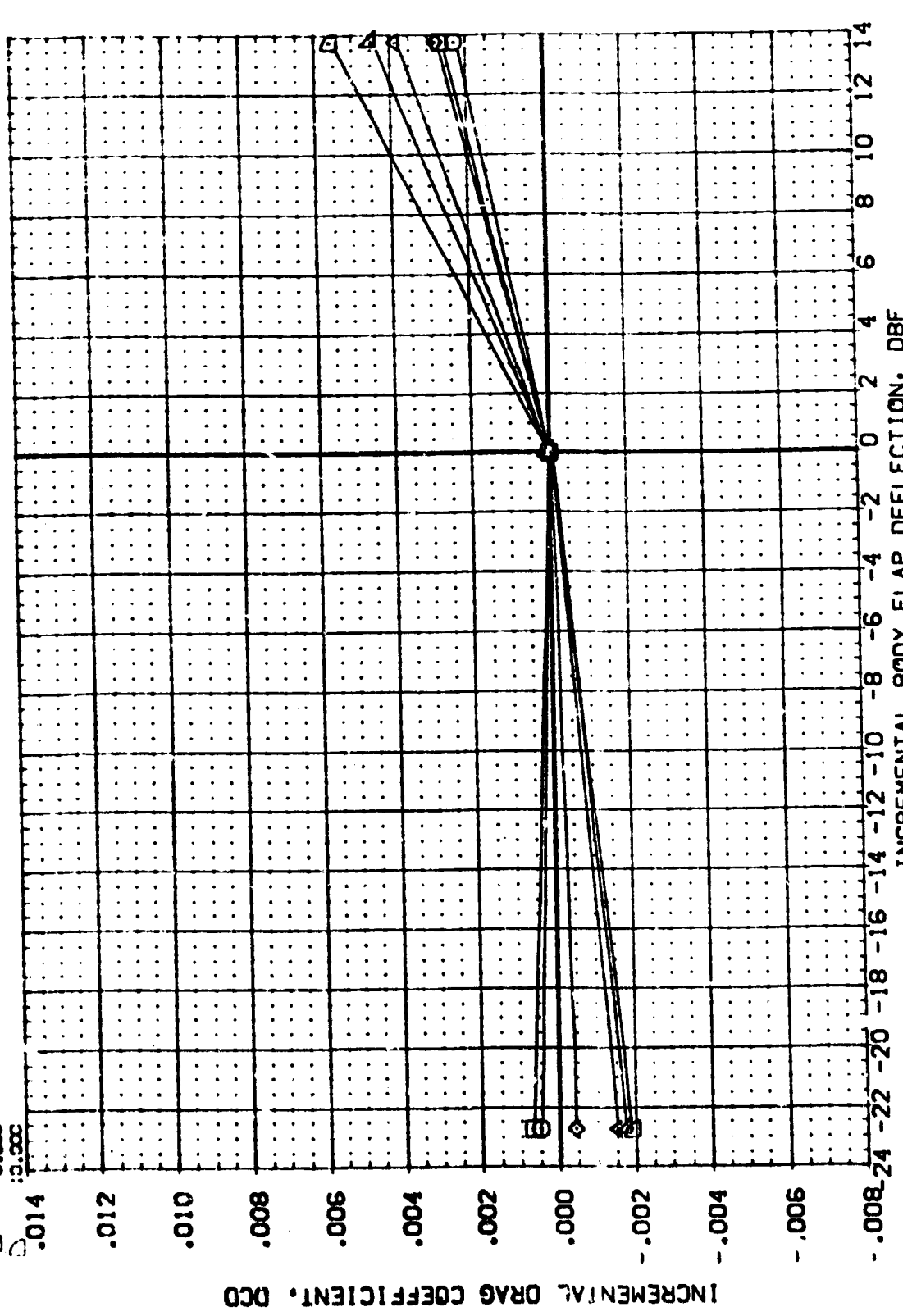


FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 139B
 INCREMENTAL BODY FLAP DEFLECTION, DBF
 PAGE 116

MSFC 574(CA48) ORB 139B (F6)

SYMBOL	ALPHA	MACH	BETA	ATLON	SPDRK	999.990	PARAMETRIC VALUES	DATA SET	DATA SOURCE	DATASET	DBF	REF	REFERENCE IN CORRELATION	SC.F.T.
○	12.000		2.990					.000	DBF	L87101	.000	REF	2690.0000	
□	14.000	ELEVTR	.000	ATLON				.000	-22.750	L87105	.000	REF	474.8000	
◇	16.000	SPDRK						.000	13.750	L87102	.000	REF	936.7000	
△	18.000							.000			.000	XPRP	838.7000	
								.000			.000	YPRP	.0000	
								.000			.000	ZPRP	.0000	
								.000			.000	SCALE	.0000	

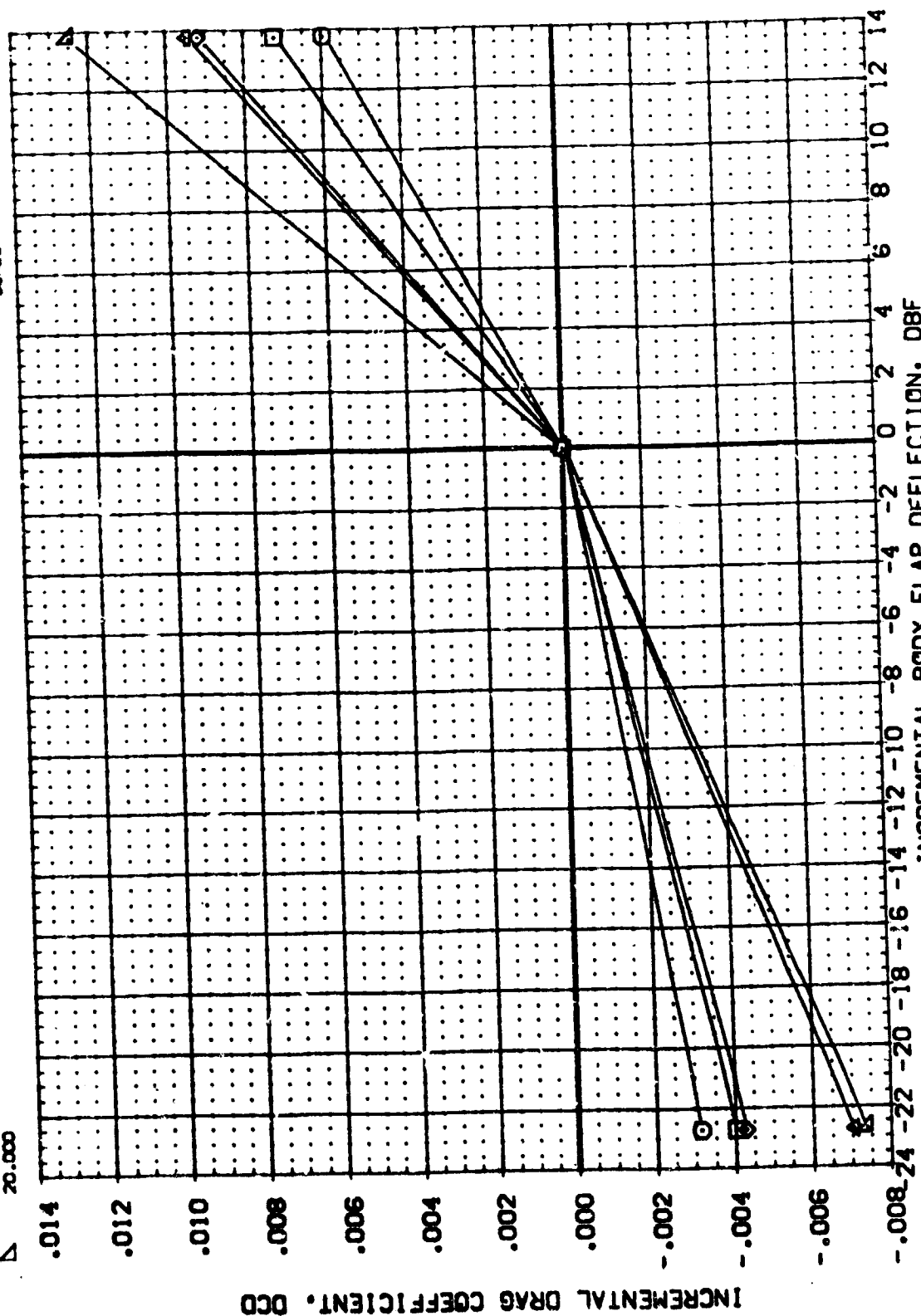


FIG. 34

INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 1398

PAGE 162

WSEC 574(0A48) CRB 1393 (F6)

REFERENCE INFORMATION

000.



7106
TASET

07
VO
334

750
750

DATA
08.22.
13.

101
102
103

DATE	TIME	LOCATION	WIND DIRECTION	WIND SPEED	SEA STATE	WEATHER	REMARKS
087	1807						
087	1807						

88

53

VALU
BETA
ALRO

METRIC

PARA
4.9
.C
999.9

4/18/88

3005
1373
PAC

88888888

ALP 2 4 6 8

07044

5

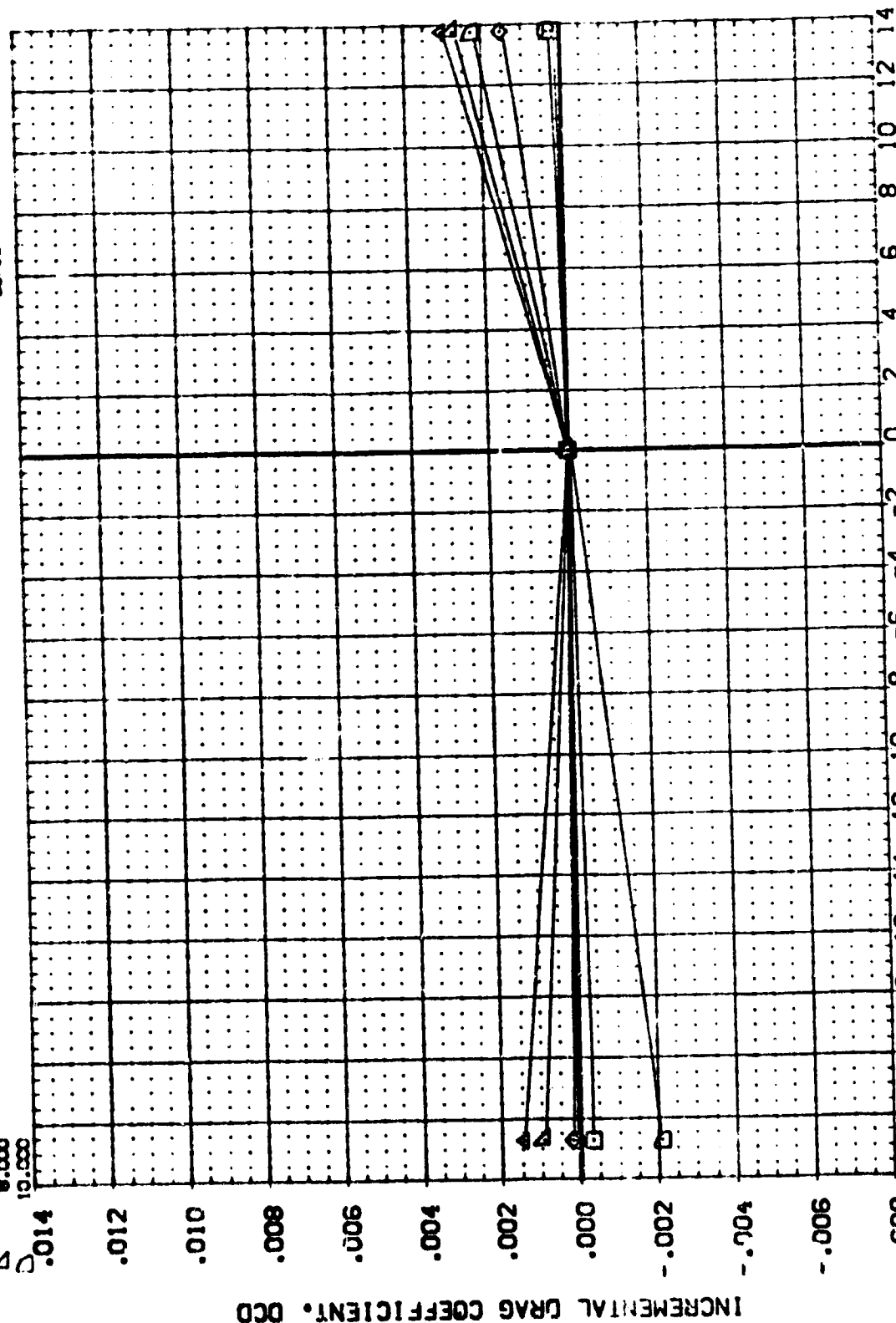


FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 139B

MSCC 574(CA48) DRB 1398 (F6)

REF	REFERENCE INFORMATION
2690	0000
474	8000
936	7000
938	7000
0000	0000
0000	0000
0040	0040

DATA SOURCE
DBF
-22.75C
13.75D

DATA SET
L8710!
L87102

PARAMETRIC VALUES

**MAC-
ELEVTR
SPRBRK**

A-2-A
12.000
14.000
16.000
18.000
20.000

501044

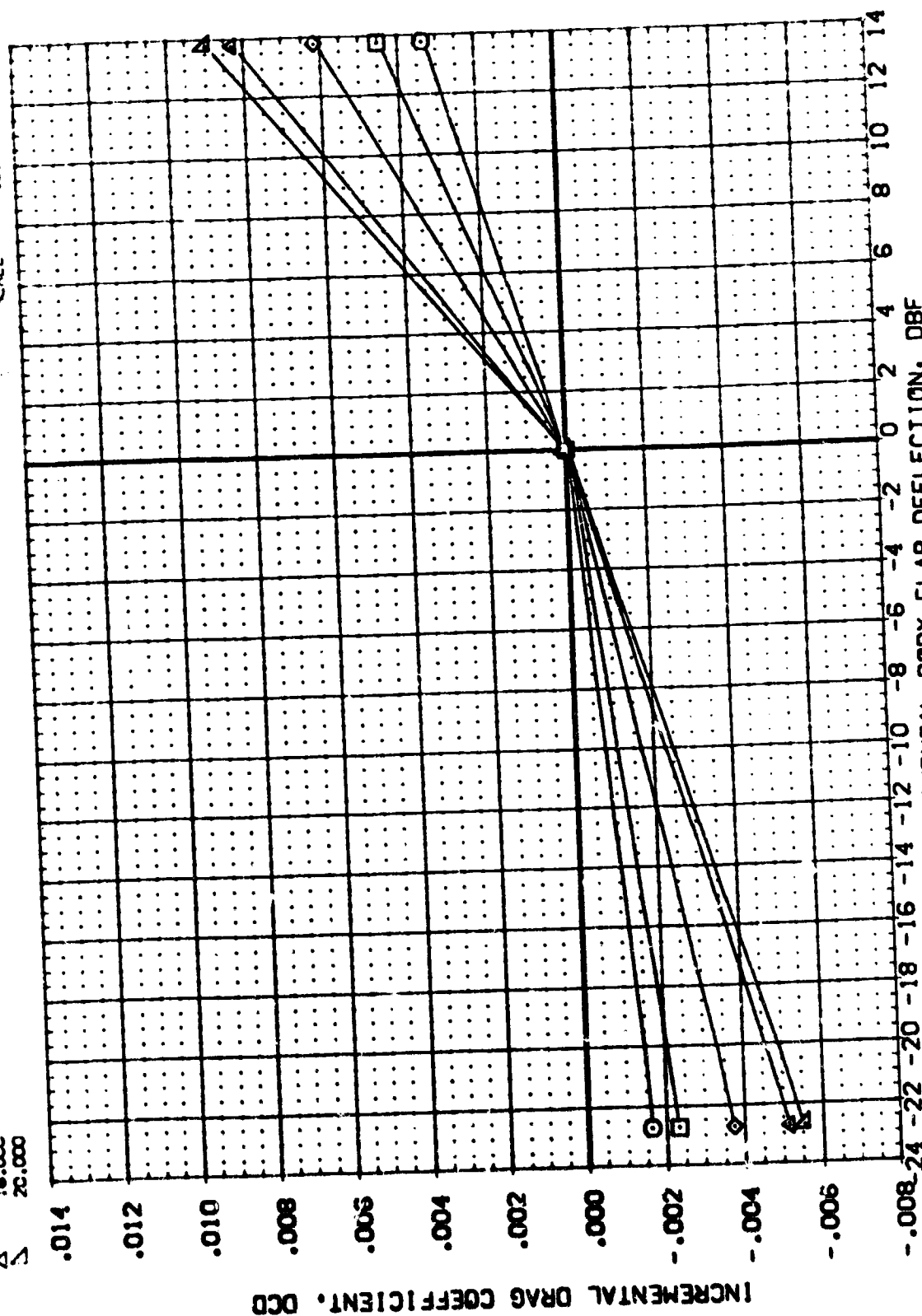


FIG. 34

INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 1398

PAGE 1164

MSFC 574(0A48) ORB 139B (F6) (L87100)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DBF	REFERENCE INFORMATION
00	20.000	ELEVTR	2.990 BETA	DBF	L87104	.000	2690.0000
04	22.000	SPOBRK	.010 AILRON	-22.750	L87100	.000	174.8000
40	24.000		999.990	13.750	L87103	.000	935.7000
44	26.000					.000	836.7000
48	28.000					.000	.0000
52	30.000					.0010	.0000
						SCALE	.0010

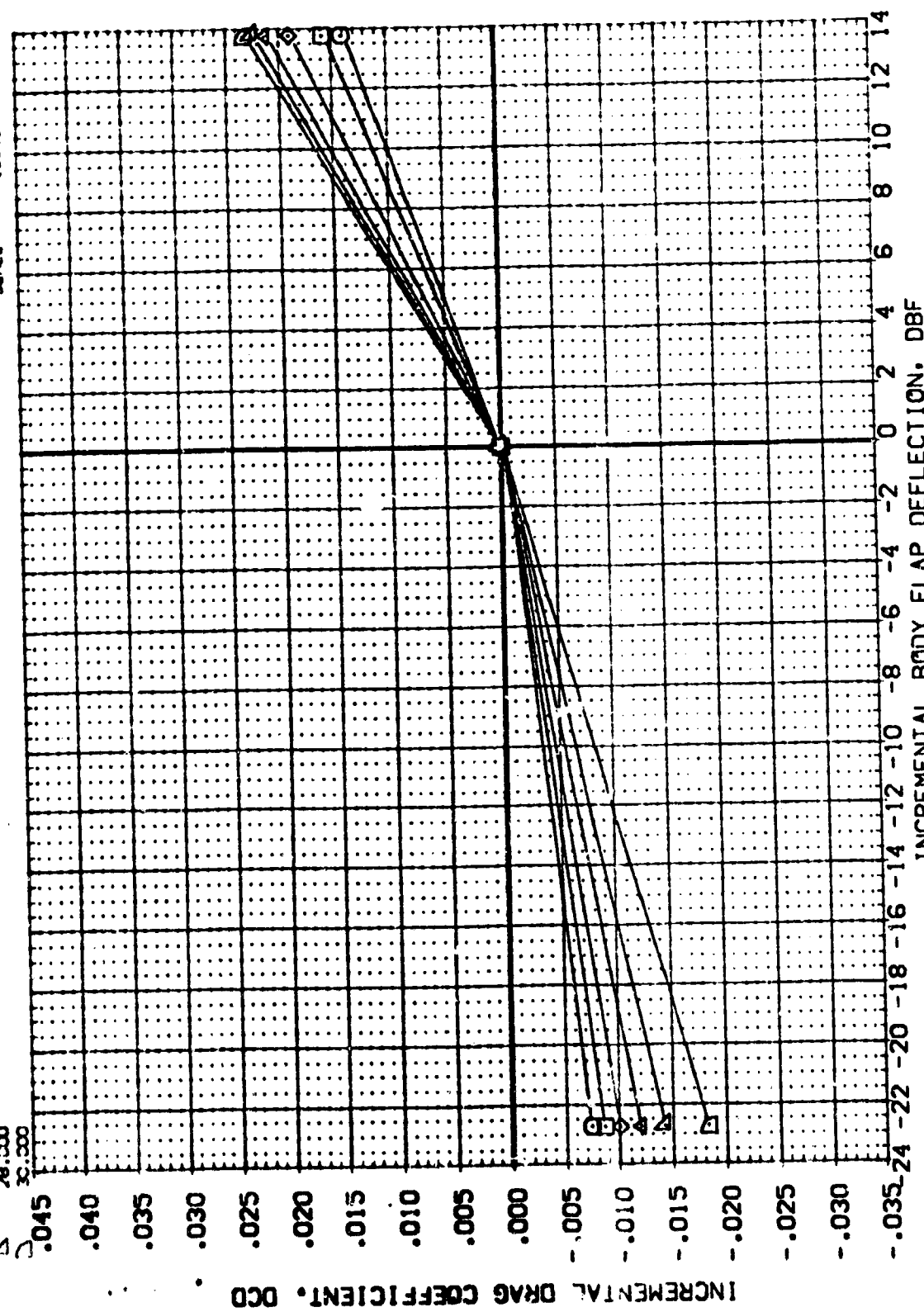


FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 139B
PAGE 1:65

(L87100)

MSFC 574(0A48) ORB 1398 (F6)

SYMBOL
◇
◇
◇
◇
◇

ALPHA
32.000
34.000
36.000
38.000
40.000

MACH
ELEVTR
SPDRK

PARAMETRIC VALUES
2.590 BETA
.000 AILRON
999.990

.000 DATASET
.000 L87100
.000 L87103

DATA SOURCE
DBF
22.750
13.750

DATASET
L87104

SREF
REF
BRI
XREF
YREF
ZREF
SCALE

2690.0000
474.6000
936.7000
838.7000
.0000
.0000
.0040

REFERENCE INFORMATION
SCALING
11111111

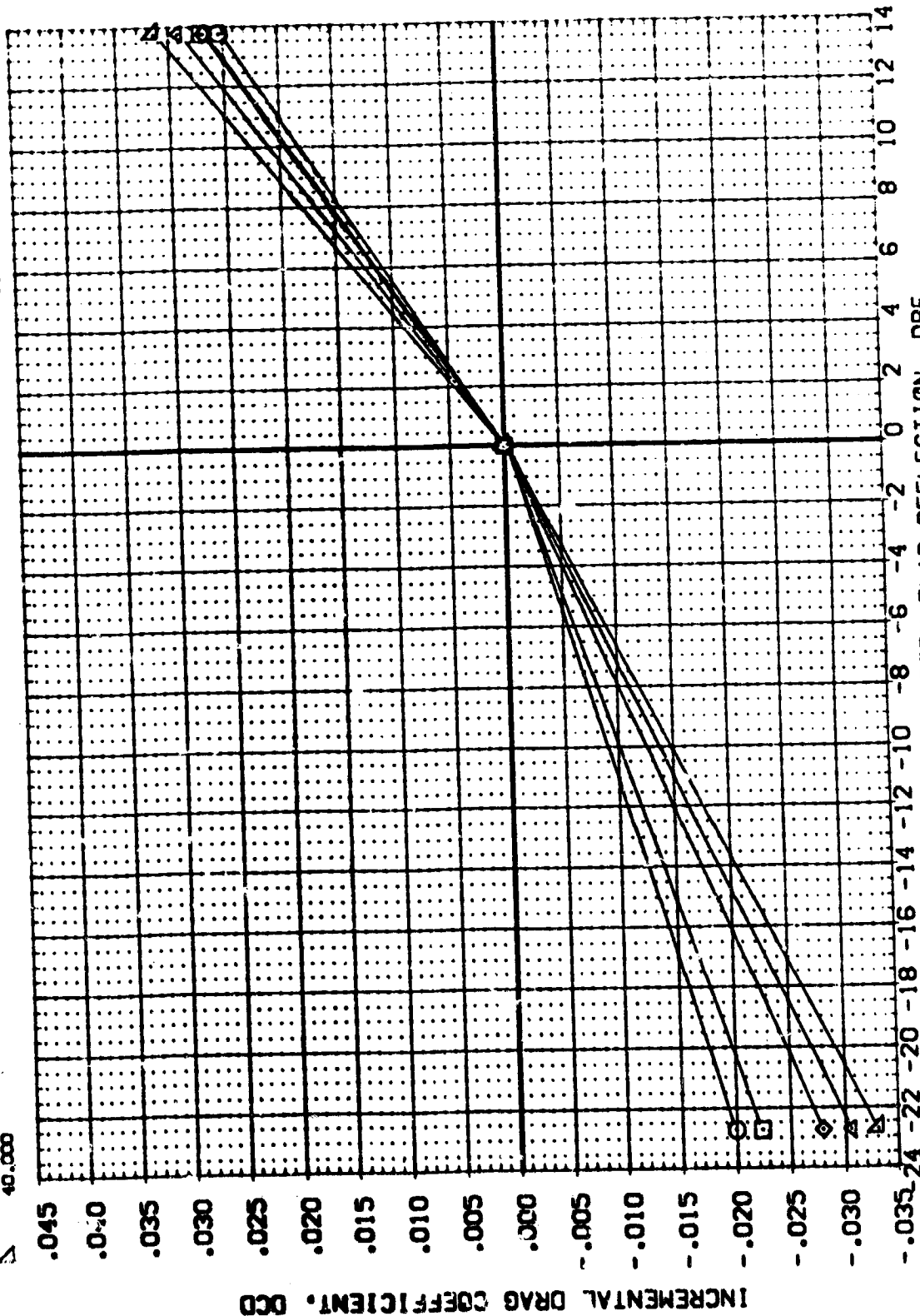


FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 1398
INCREMENTAL BODY FLAP DEFLECTION, DBF

(L87100)

MSFC 574(0A48) ORB 139B (F6)

REFERENCE INFORMATION
SREF 2690.0000
LREF 474.8000
BREF 936.7000
XREF 838.7000
YREF 0.0000
ZREF 0.0000
SCALE 1.0000

DATA SOURCE
DBF -72.750
13.750

DATASET
L87100
L87103

PARAMETRIC VALUES
MACH 4.960
BETA .000
AILRON 999.999

ALPHA
20.000
22.000
24.000
26.000
28.000
30.000

SYMBOL
0.045
0.040
0.035
0.030
0.025
0.020
0.015
0.010
0.005
0.000
-0.005
-0.010
-0.015
-0.020
-0.025
-0.030
-0.035

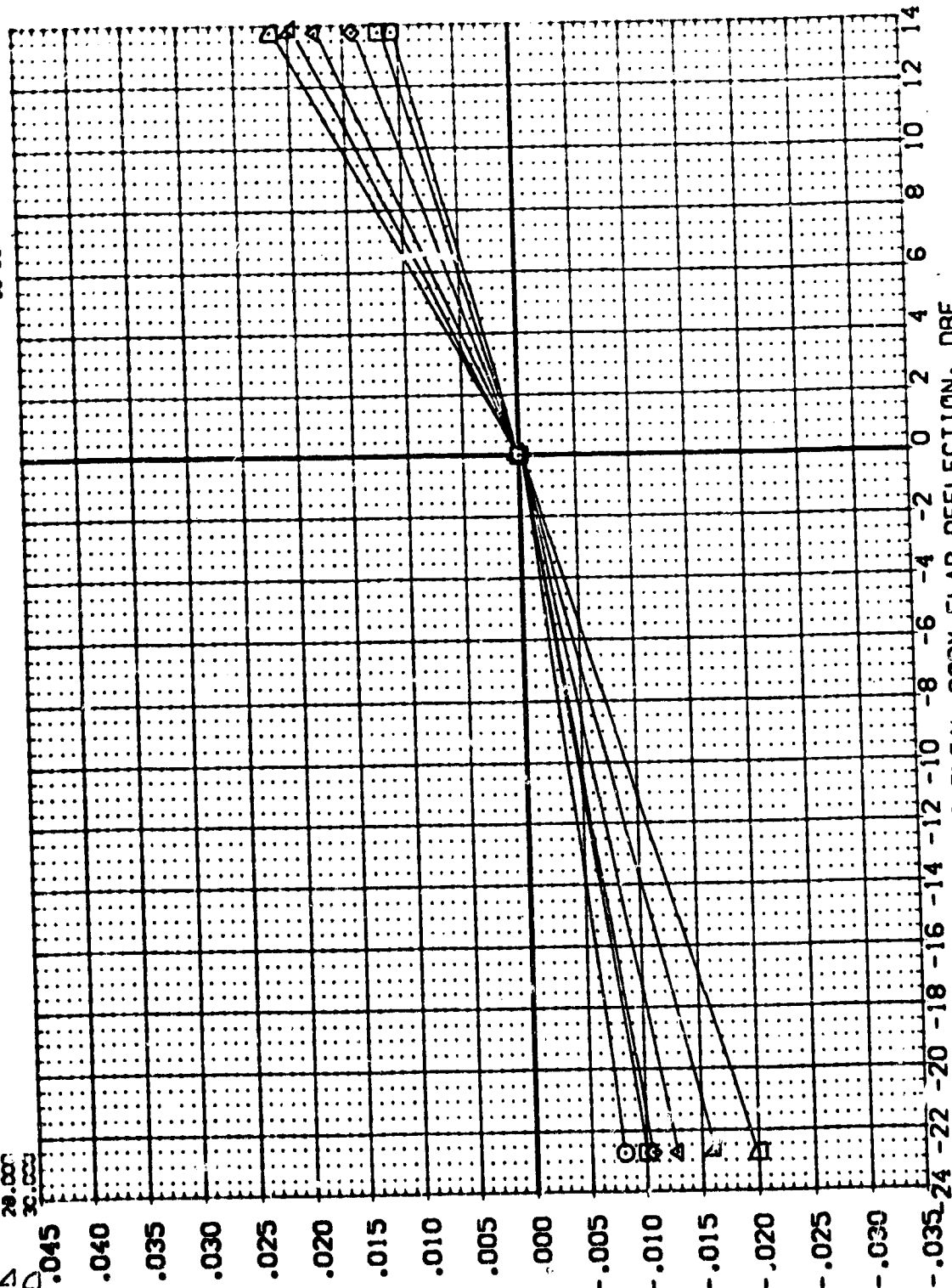


FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 139B
INCREMENTAL BODY FLAP DEFLECTION, DBF
PAGE 1167

(L87100)

MSFC 574(0A48) ORB 139B (F6)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	MACH	DATA SET	DBF	SRF	SCALE
32.000	4.960	.000	.000	2690.0000	1.0000
34.000	.000	.000	.000	474.8000	1.0000
36.000	999.990	.000	.000	935.0000	1.0000
38.000		.000	.000	838.0000	1.0000
40.000		.000	.000	7000.0000	1.0000

SYMBOL
32.000
34.000
36.000
38.000
40.000

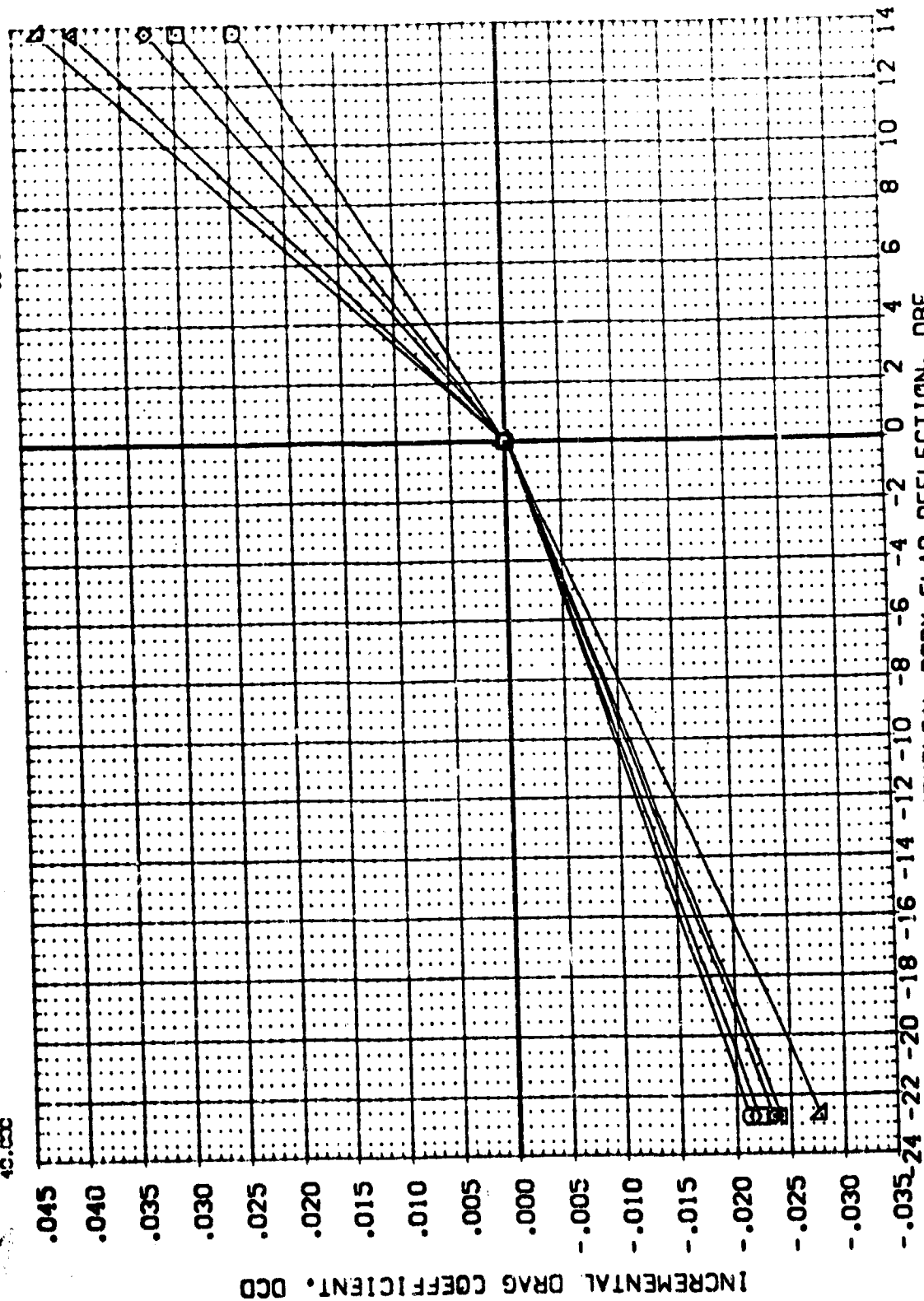
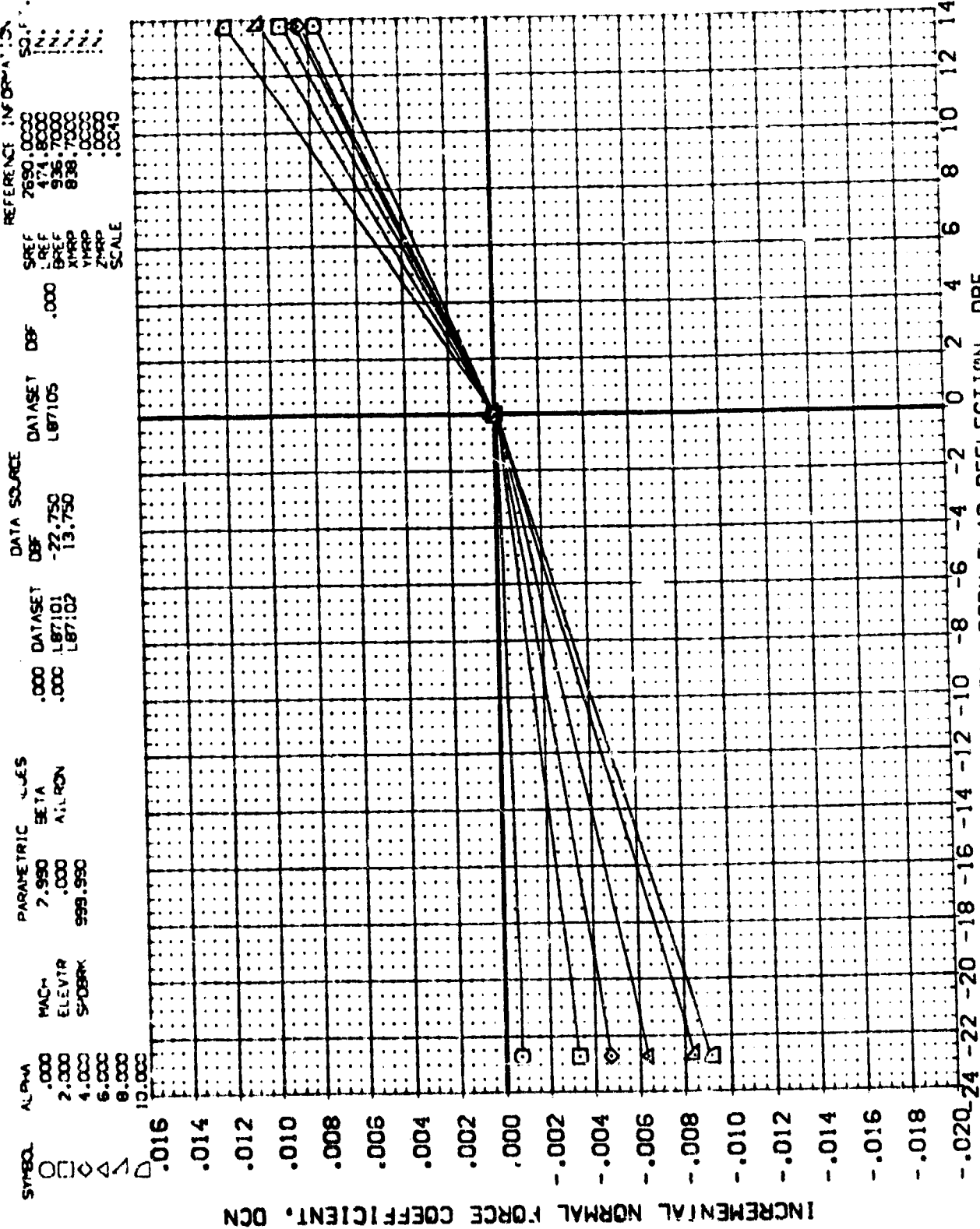


FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 139B

REF	2690.0000
REF	474.8000
REF	936.7000
XMRP	838
YMRP	0000
ZMRP	0000
SCALE	0010



(L87101)

MSFC 574(0A48) ORB 139B (F6)

SYMBOL
ALPHA
12.000
14.000
16.000
18.000
20.000

PARAMETRIC VALUES
MACH
2.990
ELEVTR
.000
SPCRK
999.990

DATA SOURCE
DS
-22.750
13.750

DATASET
L87101
L87102

DBF
.000

REFERENCE INFORMATION
SRF
2690.0000
LREF
474.8000
BRF
936.7000
XMRP
838.7000
YMRP
.0000
ZMRP
.0000
SCALE
0040

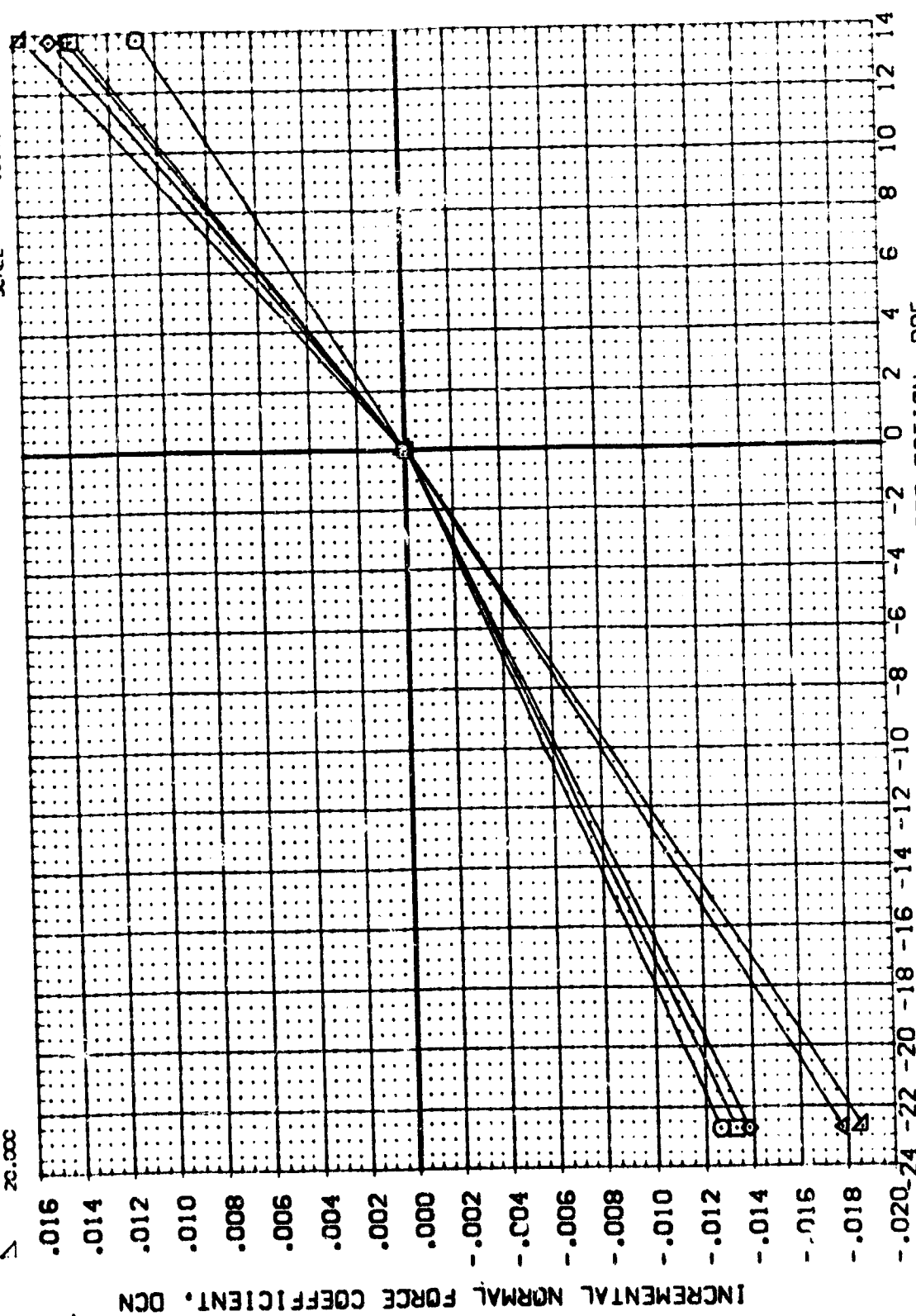


FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 139B
PAGE 117C

(L87101)

MSEC 574(OA48) ORB 1398 (F6)

REFERENCE INFORMATION
SC.F.
2690.0000
474.8000
936.7000
838.7000
0.0000
0.0000
0.0040

DATA SOURCE
DBF
L87101
L87102
13.750
13.750

PARAMETRIC VALUES
MACH 4.950
BETA .000
ALTRON 999.990

SYMBOL
ALPHA
2.000
4.000
6.000
8.000

INCREMENTAL NORMAL FORCE COEFFICIENT, DCN

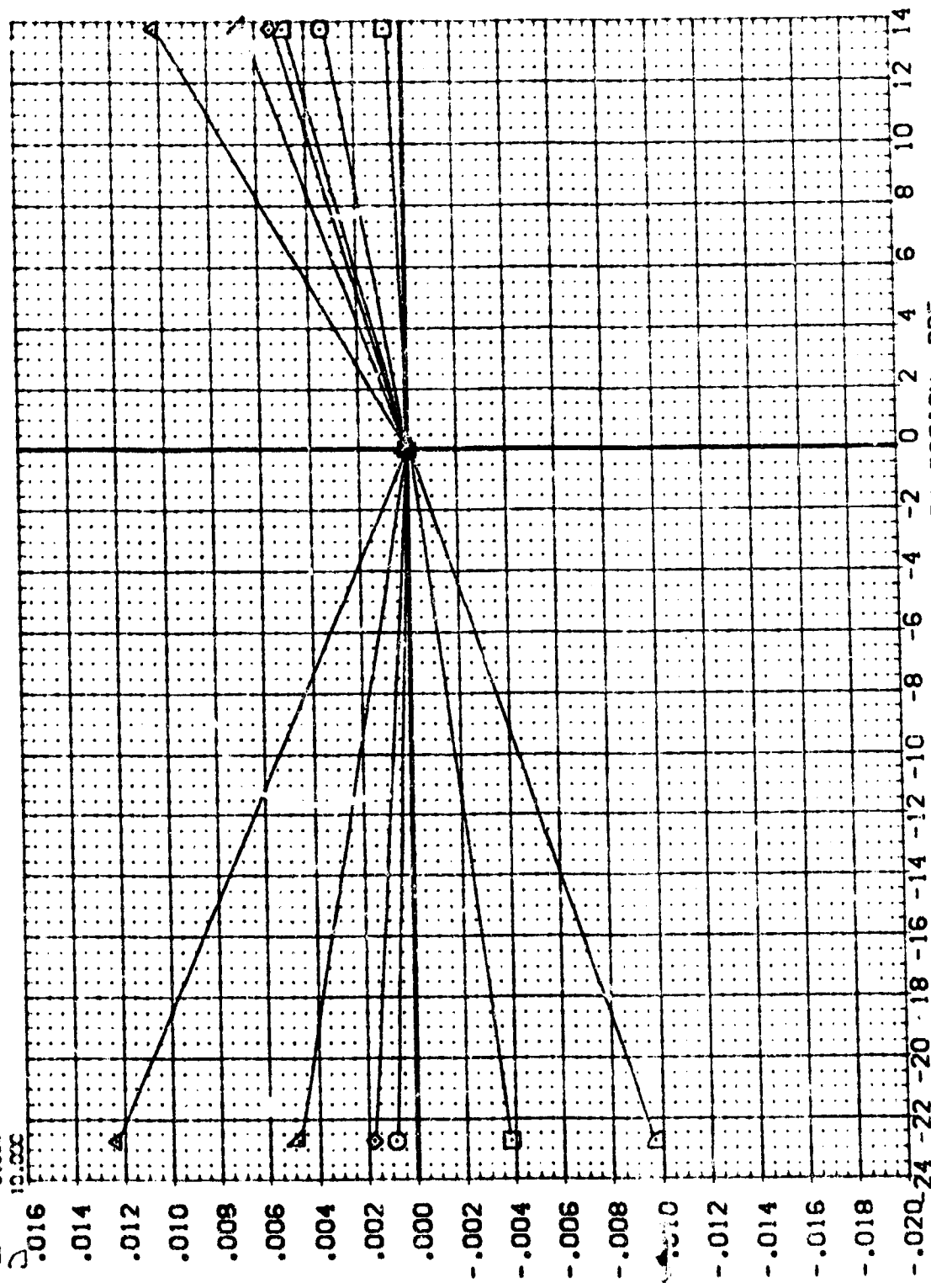


FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 1398
INCREMENTAL BODY FLAP DEFLECTION, DBF

MSFC 574(CA48) ORB 139B (F6)

REFERENCE INFORMATION

SCA 8
0254Z
0254Z
0254Z
0254Z
0254Z
0254Z

8

8

135

DATA
18710


ACE

750
750

DATE
DBF
-22-
13.

136
101
02

DATA:
19710
18710



4. 1

53

VAL
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A:LR

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ARAME
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99.99

a 82

CH
EVIP
OBRK

173
174
175

000000

12. 14. 16. 18.

804

3415

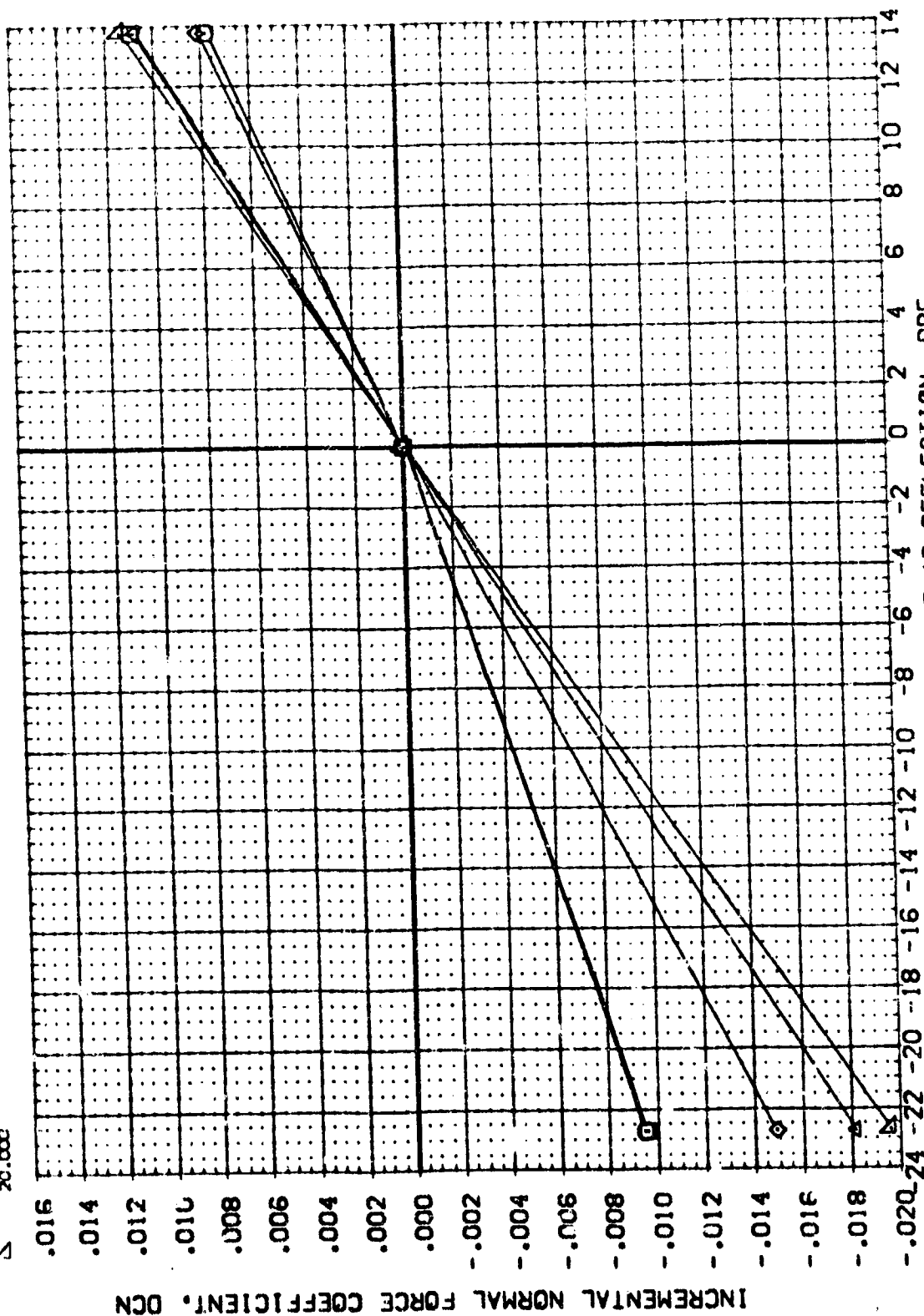


FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 139B

MSFC 574(0A48) ORB 139B (F6) (L87100)

ALPHA	20.000	MACH	2.990	BETA	.000	DATASET	.000	SREF	2690.0000
ELEVTR	22.000	ELEVTR	.000	ATLRN	.000	DATASET	.000	LREF	474.8000
SPDRK	24.000	SPDRK	999.950			DATASET	.000	BREF	936.7000
	26.000					DATASET	.000	XREF	838.7000
	28.000					DATASET	.000	YREF	.0000
	30.000					DATASET	.000	ZREF	.0000
						DATASET	.000	SCALE	3040

REFERENCE INFORMATION
SCF.T.
222222

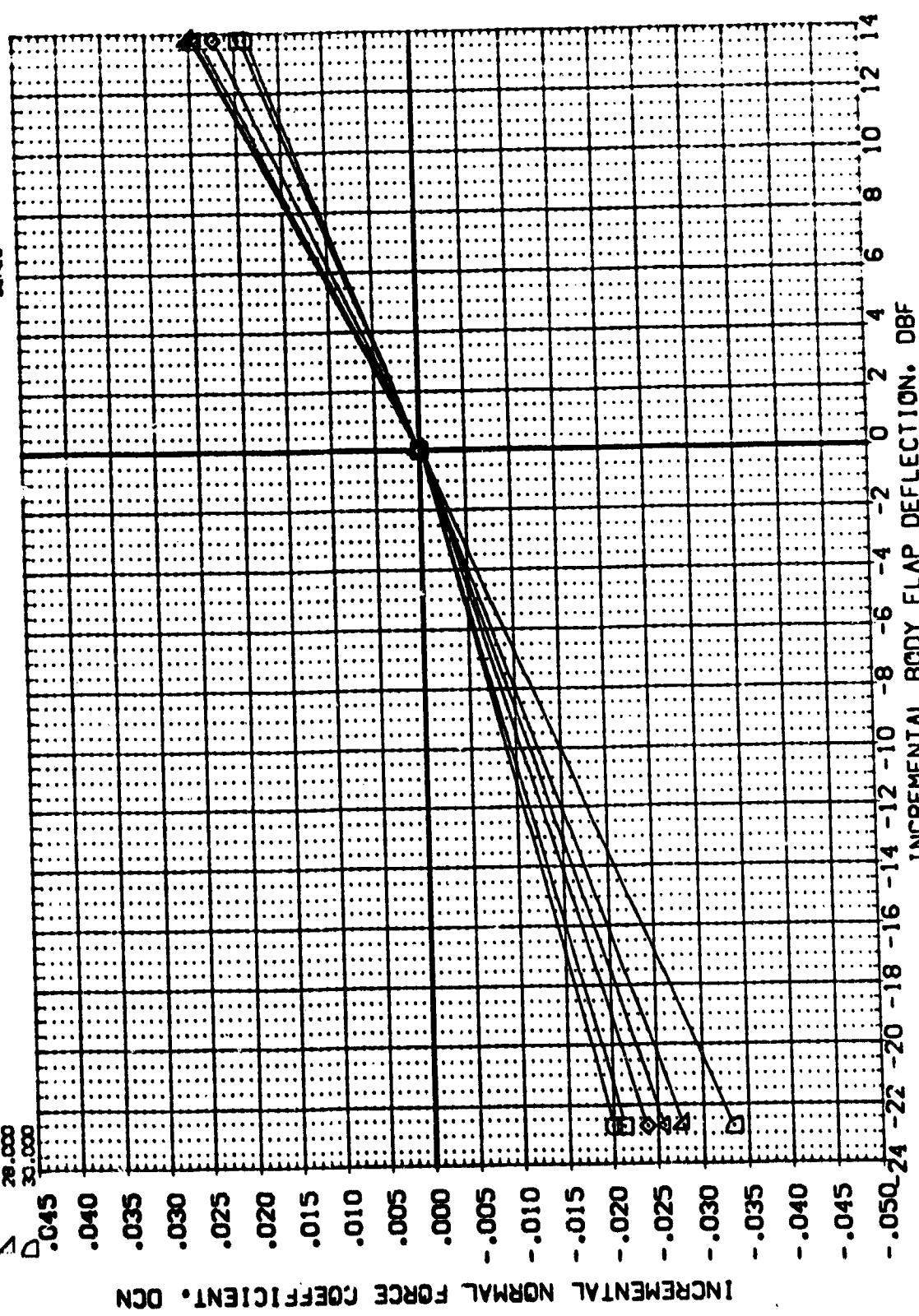


FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 139B
PAGE 1173

MSFC 574(0A48) ORB 139B (F6)

(L87:00)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE		REFERENCE IN OPERATIONS	
○	32.000	ELEVTR	2.990	BETA	.000	DBF	SREF	2690.0000
□	34.000	SPDRBK	.000	ATLRON	.000	DBF	LREF	474.8000
◇	36.000		999.990		-22.750	DBF	BREF	936.7000
△	38.000				13.750	DBF	XREF	838.7000
▽	40.000					DBF	YREF	.0000
						DBF	ZREF	.0000
						DBF	SCALE	.0000

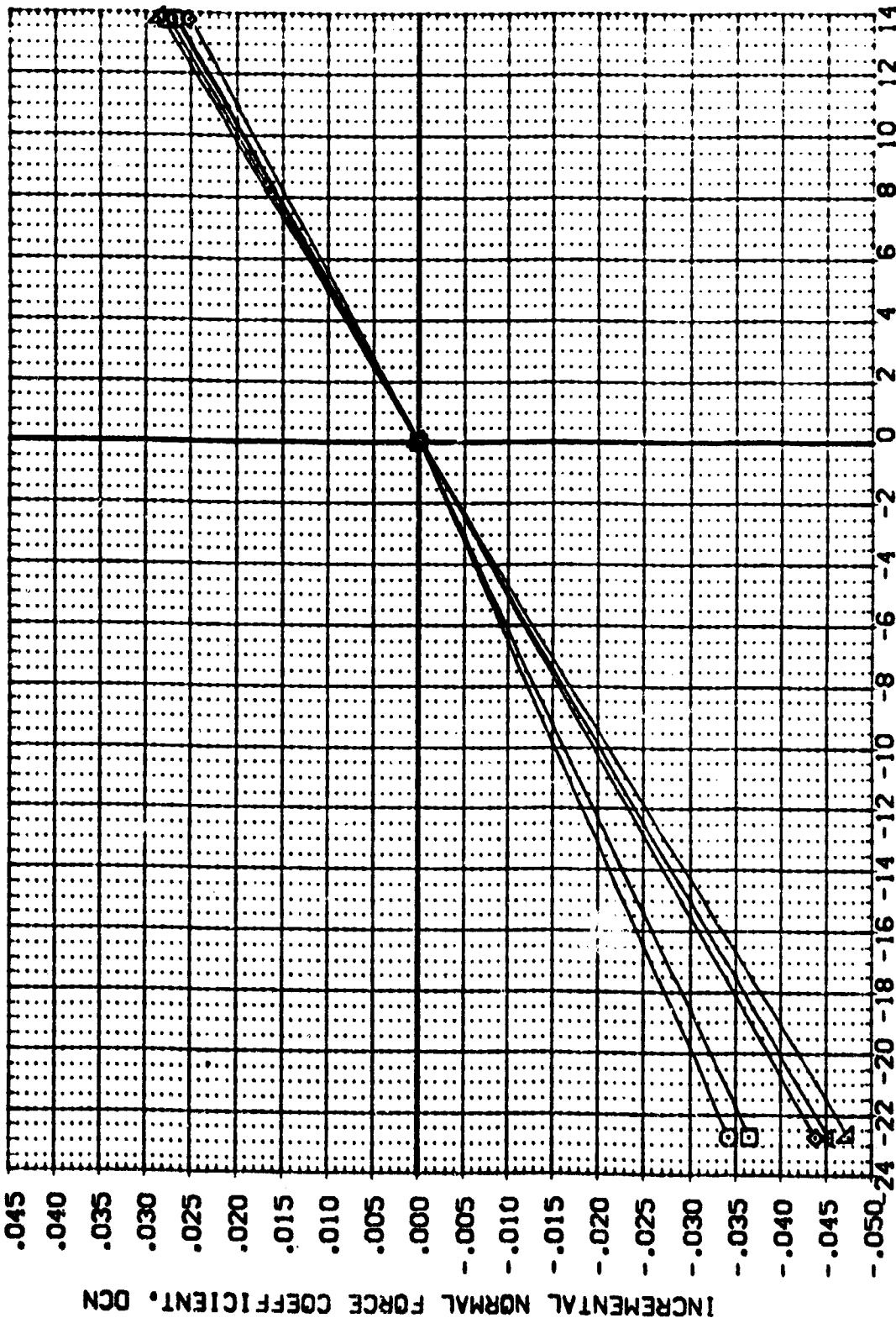


FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 139B

100

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
WACH	32.000	4.960	DBF	SRF
ELEVTR	34.000	.000	DBF	LRP
SPOBRM	36.000	999.990	DBF	BRF
	38.000		DBF	XPRP
	40.000		DBF	YPRP
			DBF	ZPRP
			DBF	SCALE
			DBF	SCALE

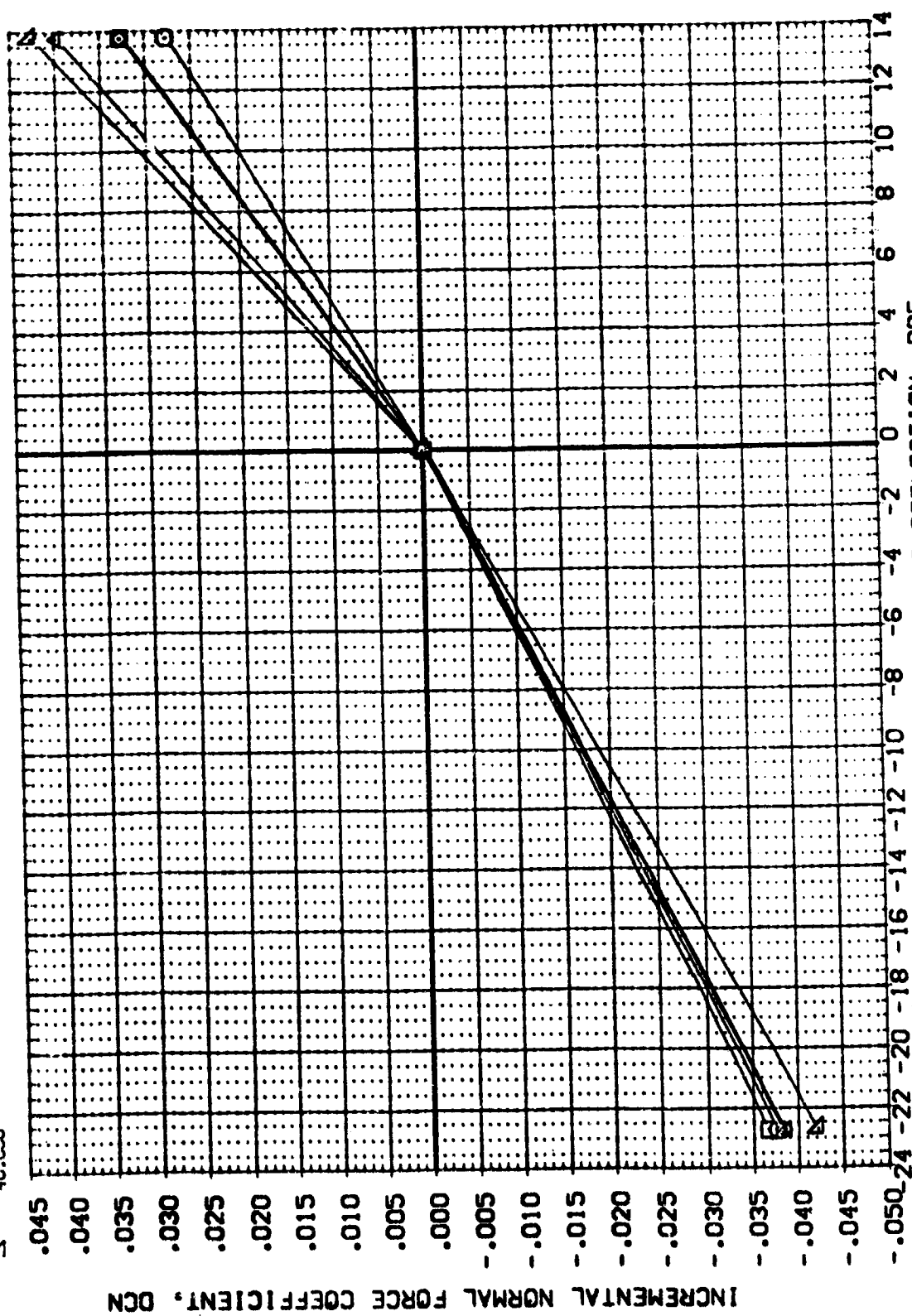


FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 139B

(L87101)

VSFC 574(0A48) ORB 1398 (F6)

REFERENCE INFORMATION
SREF 2690.0000
LREF 474.8000
BREF 936.7000
XMRP 838.7000
YMRP .0000
ZMRP .0000
SCALE .0040

DATA SOURCE

PARAMETRIC VALUES

MACH 2.990
ELEVTR .000
SPDRPK 999.990

ALPHA .000
2.000
4.000
6.000
8.000

SYMBOL
□
◇
△
▽
○
□

DATASET .000
L87101
L87102

DATASET DBF

DBF -22.750
13.750

DBF .000

SYMBOL
□
◇
△
▽
○
□

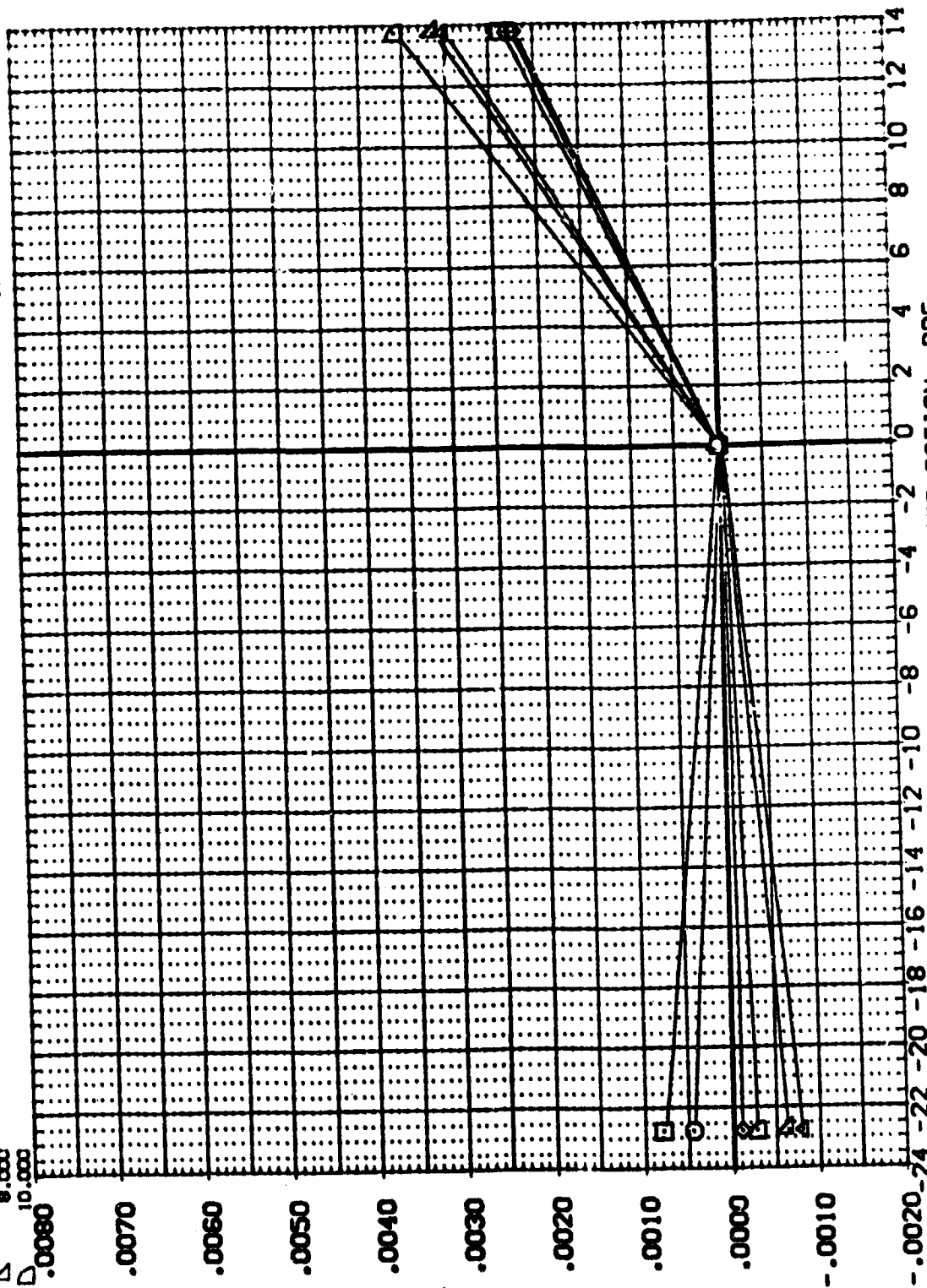


FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 1398
INCREMENTAL BODY FLAP DEFLECTION, DBF
PAGE 1177

{L87101}

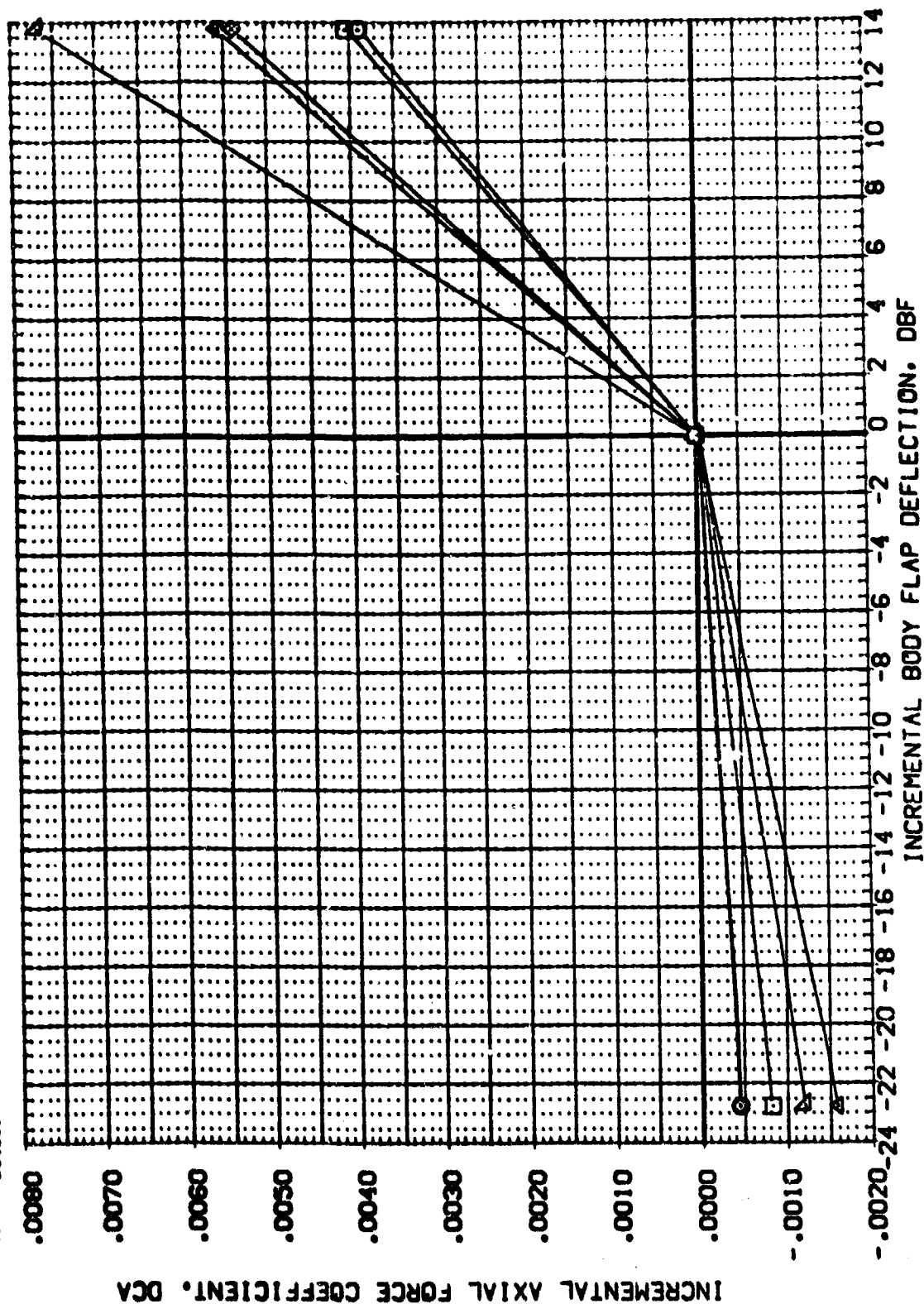
[illegible]

FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 139B

MSFC 574(0A48) ORB 139B (F6) (L87:01)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
SYMBOL	ALPHA	DATA	DBF	REF	SO. FT.
□	.000	.000	.000	2690.0000	50.000
□	2.000	.000	.000	474.8000	50.000
◇	4.000	.000	.000	938.7000	50.000
△	6.000	.000	.000	838.7000	50.000
△	8.000	.000	.000	.0000	50.000
△	10.000	.000	.000	.0000	50.000

DATA SOURCE: DBF -22.750 13.750
 DATASET: DBF 1.87101 1.87102
 REF: 2690.0000 474.8000 938.7000 838.7000 .0000 .0000
 SCALE: .0010

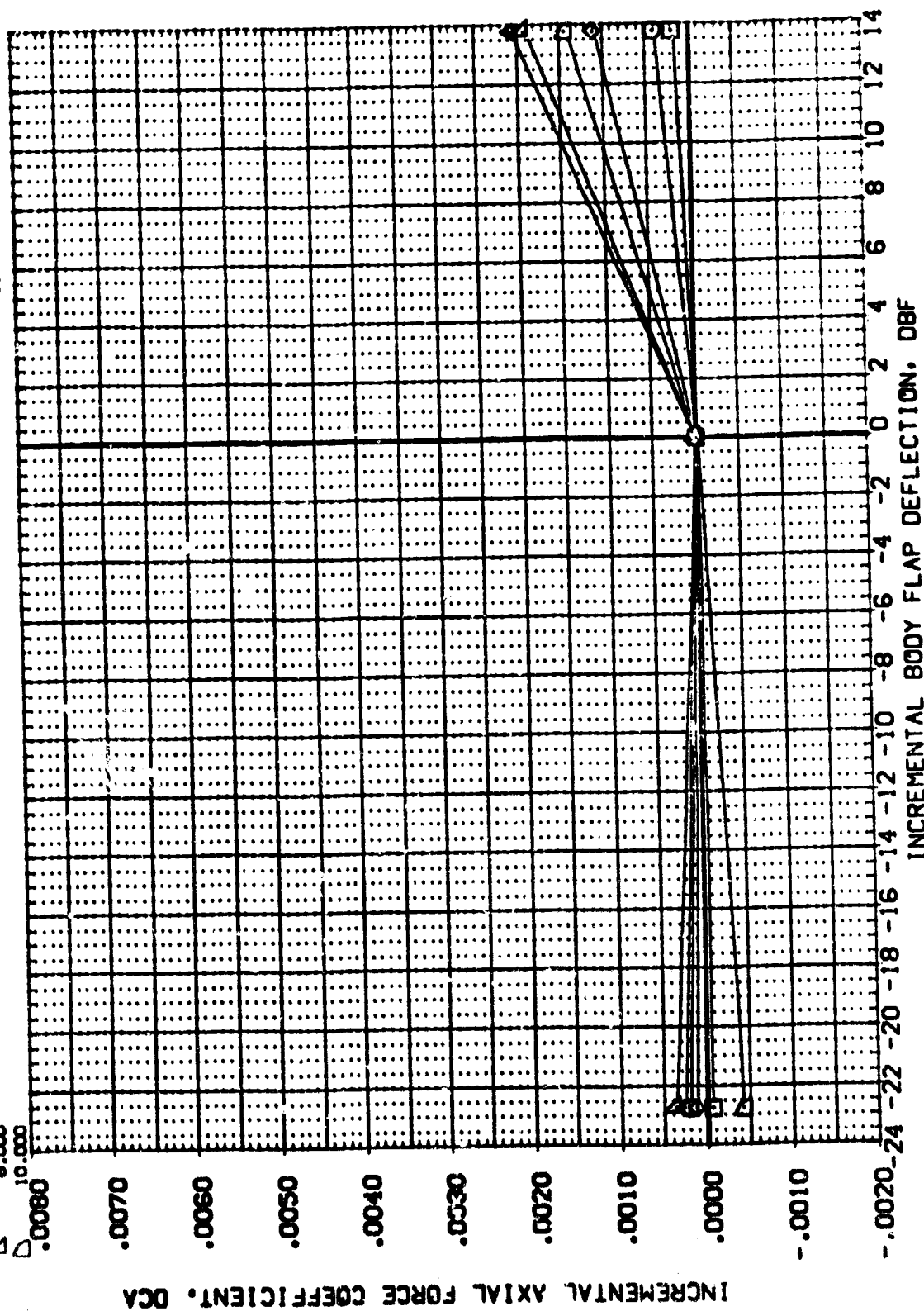


FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 139B

MSEC 574(0A48) ORB 139B (F6)

(L87101)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DBF	SCALE
○	12.000	ELEVTR	4.950 BETA	DBF	L87105	.000	2000.0000
□	14.000	SPOBRK	.000 AILRON	-22.750			474.8000
◇	16.000		259.550	13.750			936.7000
△	18.000						638.0000
▽	20.000						0.0000
							0.0010
							0.0040

REFERENCE INFORMATION

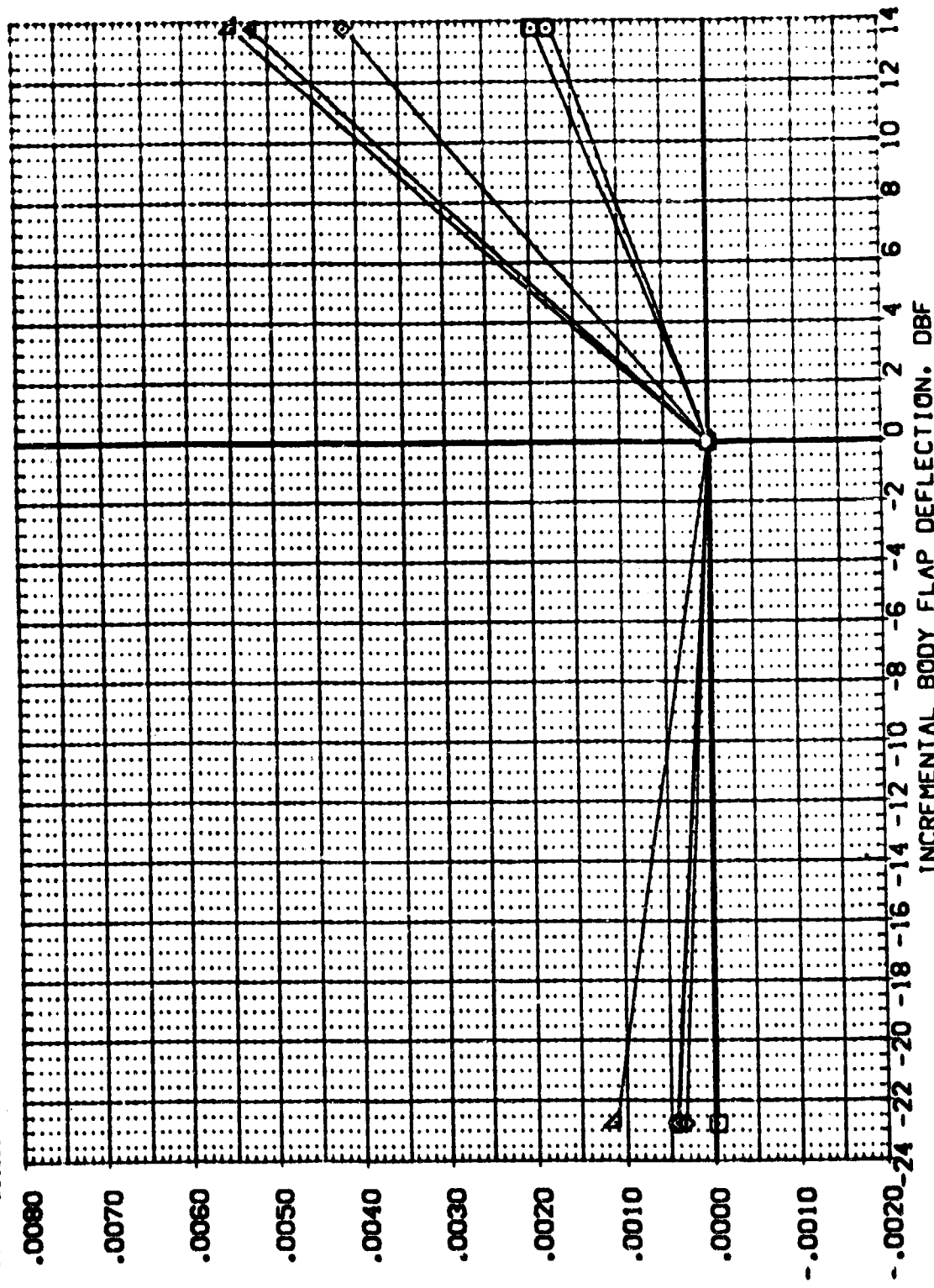


FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 139B

(187100)

MSFC 574(0A48) ORB 139B (F6)

REFERENCE INFORMATION
SREF 2890.0000
REF 474.0000
SREF 936.7500
XREF 838.7000
YREF 1000.0000
ZREF 1000.0000
SCALE 1000

DATA SOURCE
DBF -22.750
13.750

DATASET DBF
187104

DATASET
187100
187103

PARAMETRIC VALUES
BETA 2.990
A1LRN .000
999.990

MACH
ELEVTR
SPDRM

ALPHA
20.000
22.000
24.000
26.000
28.000
30.000

SYMBOL
20.000
22.000
24.000
26.000
28.000
30.000

INCREMENTAL AXIAL FORCE COEFFICIENT, DCA

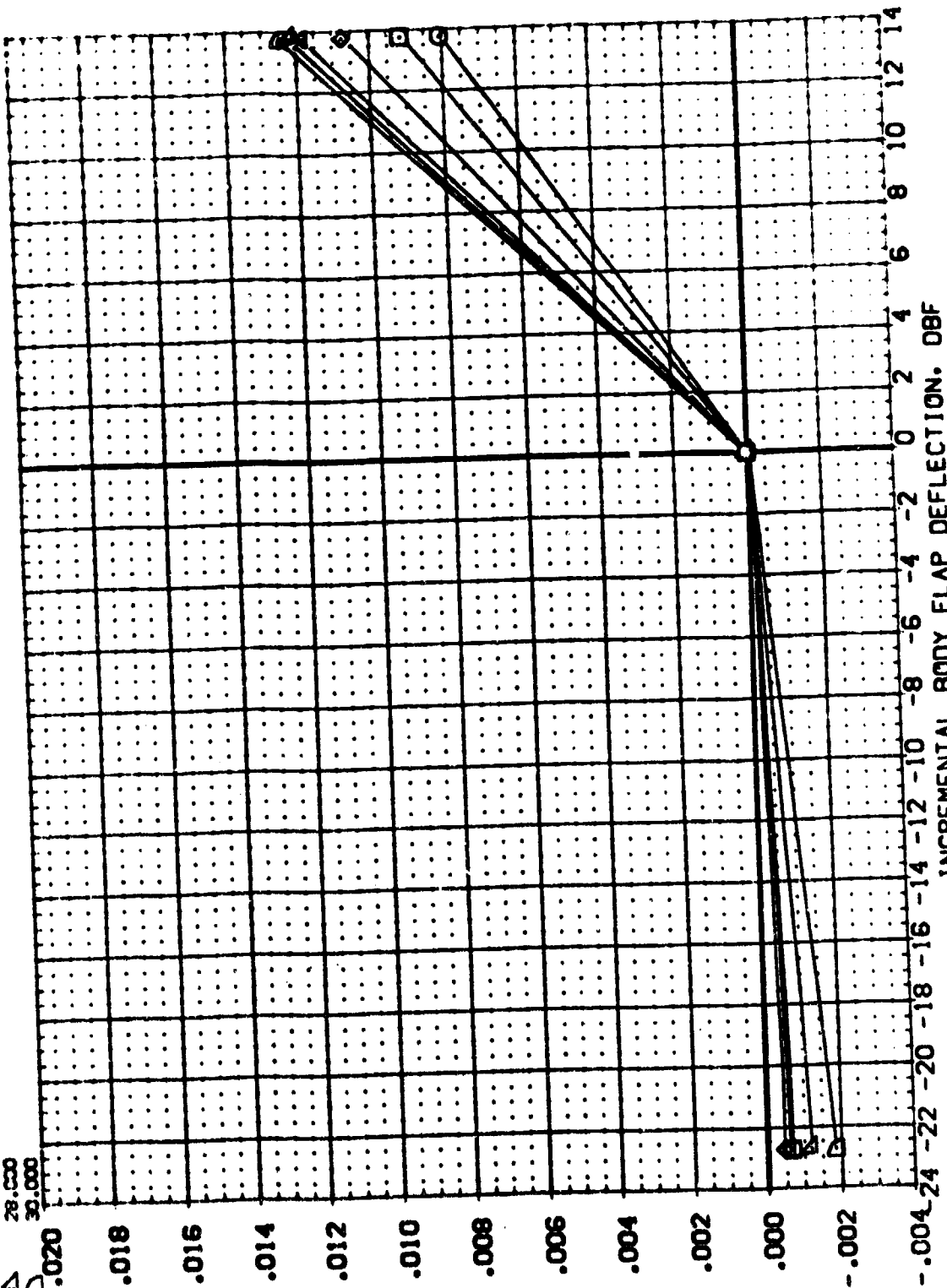



FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 139B

VSFC 574(GA48) 028 : 393 (F6)

REFERENCE: 19 SEP 1965
2650 0000
174 0000
036 7000
038 7000
000 0000
000 0000
000 0000

SCALE

8



56

DATA
1971

SPACE

2.750
3.750

DA DB -2-

7100
7103

00 00

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10

MAJESTY
LORD

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34.1
35.1
38.1

801044

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1000

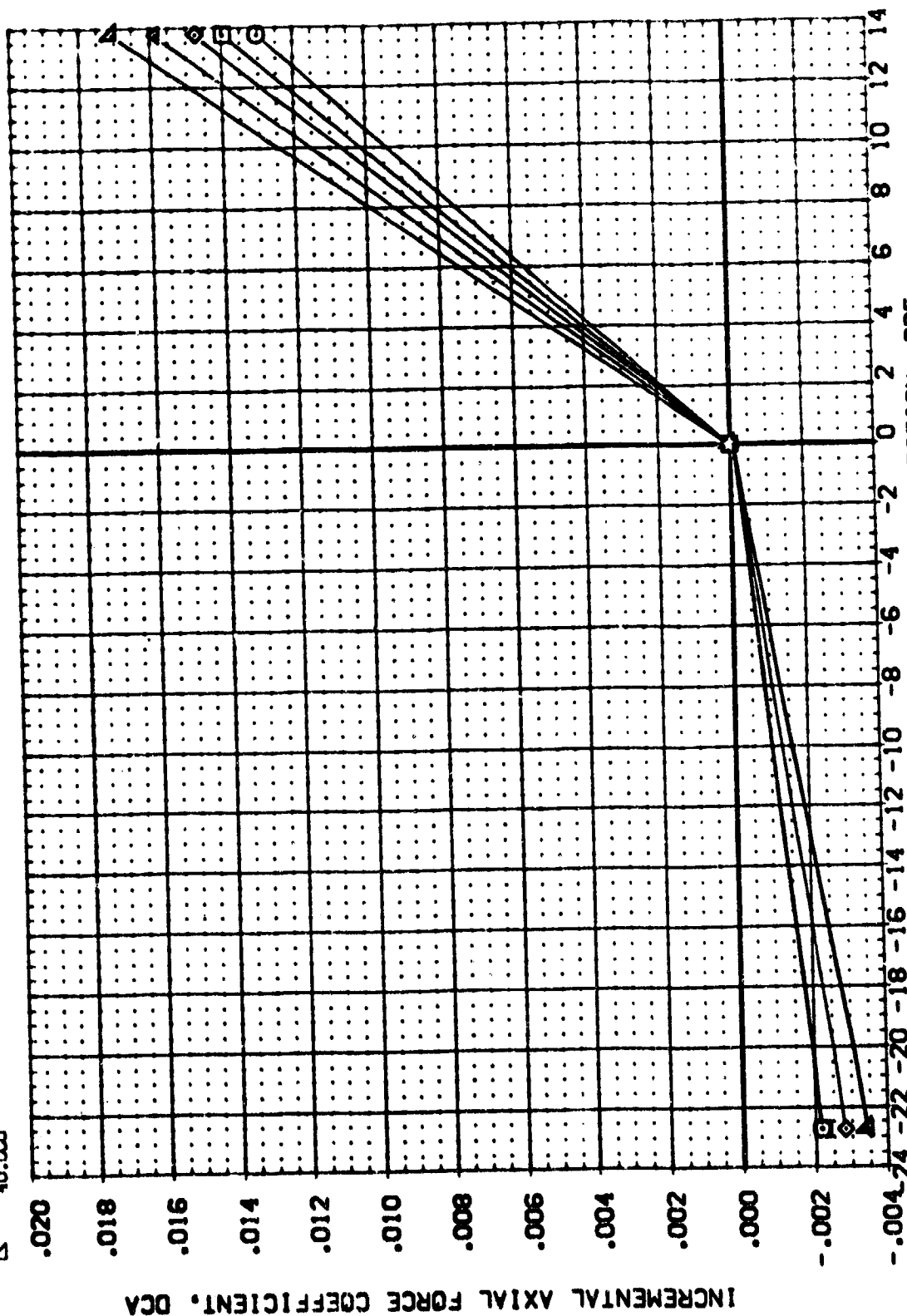


FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 1398

MSFC 574(QA48) ORB 139B (F6)

REFERENCE INFORMATION:
2690.0000
474.8000
936.7000
838.7000
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0000
0000

SCALE
ZERO
ONE
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THREE
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FIVE
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SEVEN
EIGHT
NINE
TEN

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134

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ACE

33 339

DATA
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13:1

1309

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5713
5714

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14.00
16.00
18.00

001044

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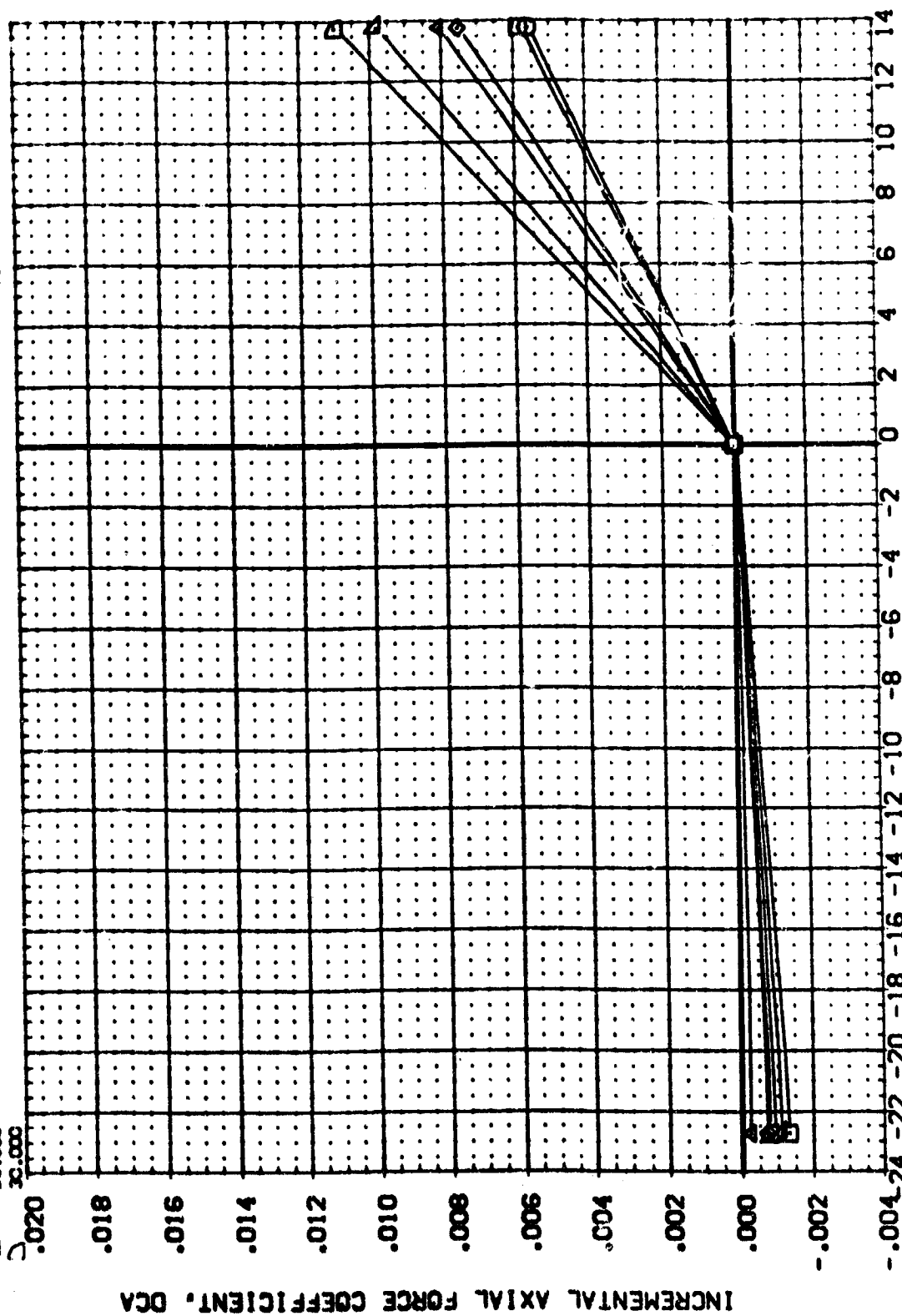


FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 139B

187100

MSFC 574(0A48) ORB 1398 (F6)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE	DATA SET	DBF	SREF	REFERENCE INFORMATION
○	32.000		4.960	BETA	DBF	L87103	.000	LREF	2690.000
□	34.000	ELEVTR	.000	AILRON	DBF	L87103	.000	BREF	474.8000
◇	36.000	SPDRK	999.990		-22.750			XREF	936.7000
△	40.000				13.750			YREF	838.7000
								ZREF	.0000
								YMRP	.0000
								ZMRP	.0000
								SCALE	.0010

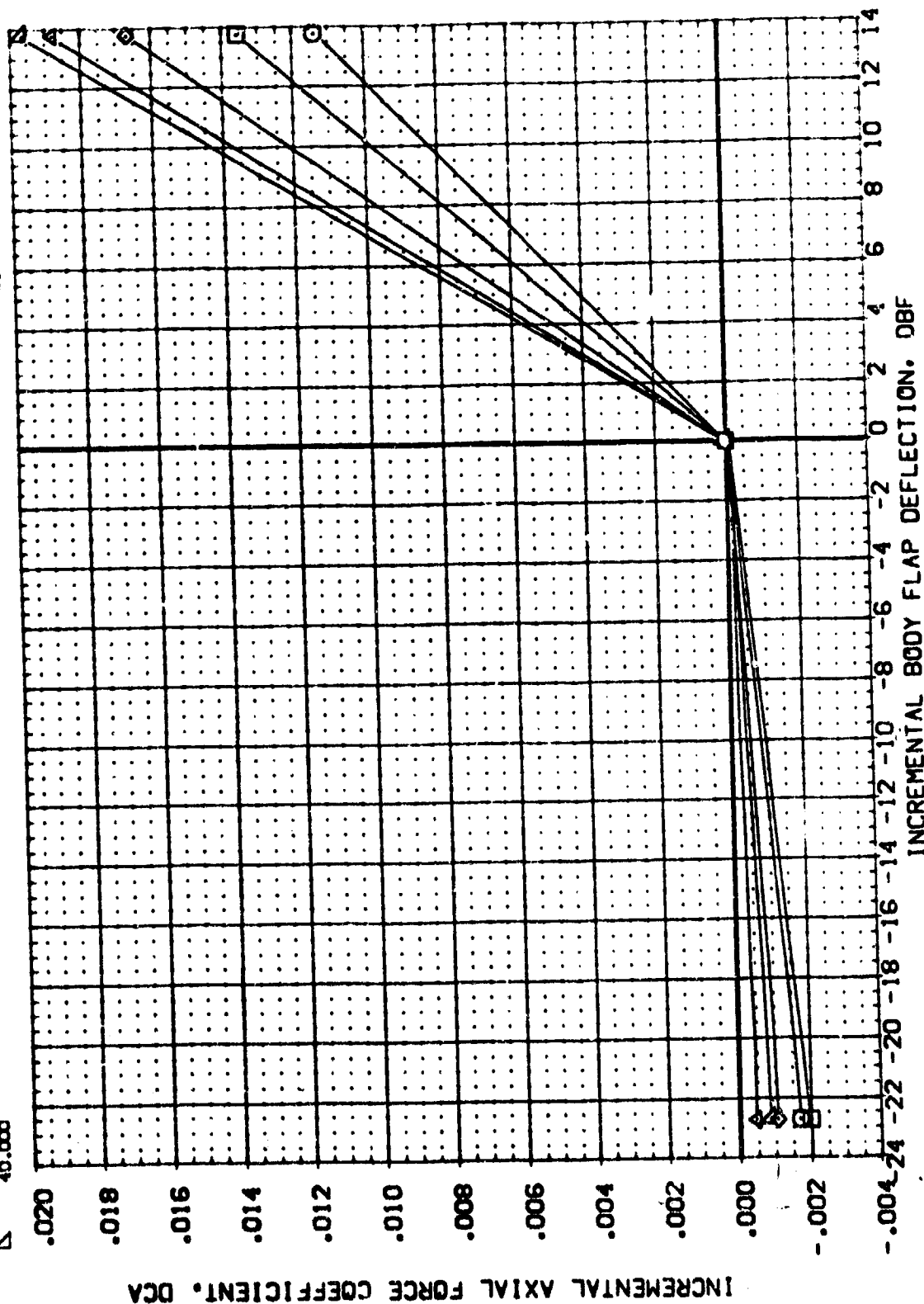


FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 1398

MSFC 574(0A48) CRB 1398 (F6)

(L87101)

SYMBOL	ALPHA	MACH	ELEVTR	SPOBRK	PARAMETRIC VALUES	.000	2.950	BETA	.000	DATA SET	DBF	-72.750	13.750	DATA SOURCE	DBF	L87105	DBF	.000	SREF	265C.000C	50.000	REFERENCE INFORMATION
0	2.000					.000	.000	AILRON	.000	L87101									474.800C			
1	4.000					.000	.000			L87102									936.700C			
2	6.000					.000	.000												838.700C			
3	8.000					.000	.000												.000C			
4	10.000					.000	.000												.000C			
5						.000	.000												.000C			
6						.000	.000												.000C			
7						.000	.000												.000C			
8						.000	.000												.000C			
9						.000	.000												.000C			
10						.000	.000												.000C			
11						.000	.000												.000C			
12						.000	.000												.000C			
13						.000	.000												.000C			
14						.000	.000												.000C			
15						.000	.000												.000C			
16						.000	.000												.000C			
17						.000	.000												.000C			
18						.000	.000												.000C			
19						.000	.000												.000C			
20						.000	.000												.000C			
21						.000	.000												.000C			
22						.000	.000												.000C			
23						.000	.000												.000C			
24						.000	.000												.000C			

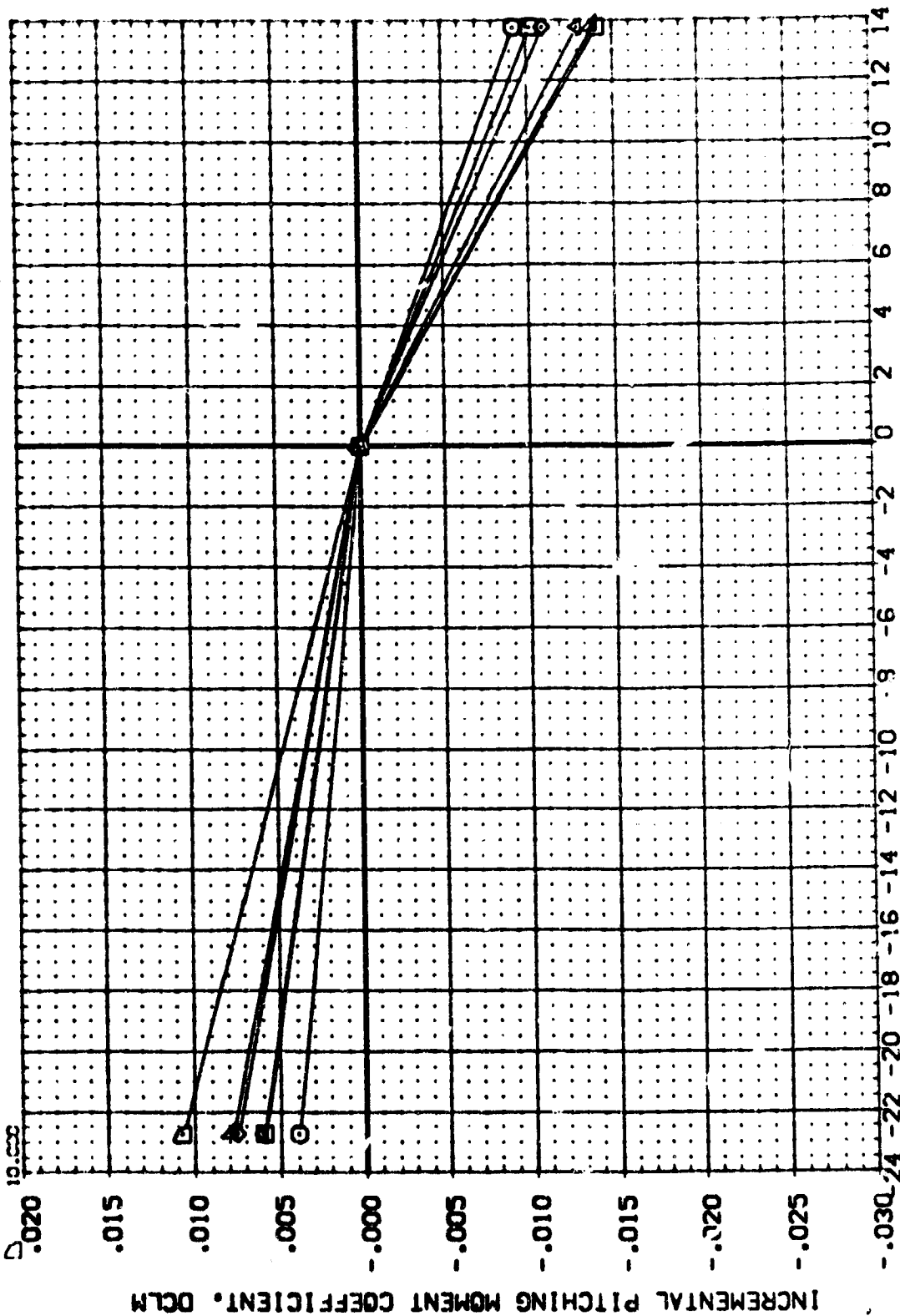


FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 1398

(L87101)

VSFC 574(0A48) ORB 1398 (F6)

REFERENCE INFORMATION
SQ. FT.
SREF 2690.0000
LREF 474.8000
BREF 938.7000
XMRP 838.7000
YMRP .0000
ZMRP .0000
SCALE .0040

DATA SOURCE
DBF -22.750
13.750

DATASET DBF
L87101
L87102

PARAMETRIC VALUES
MACH 2.990
BETA .000
AILRON 999.990

ALPHA
12.000
14.000
16.000
18.000
20.000

SYMBOL
O
□
△
▽

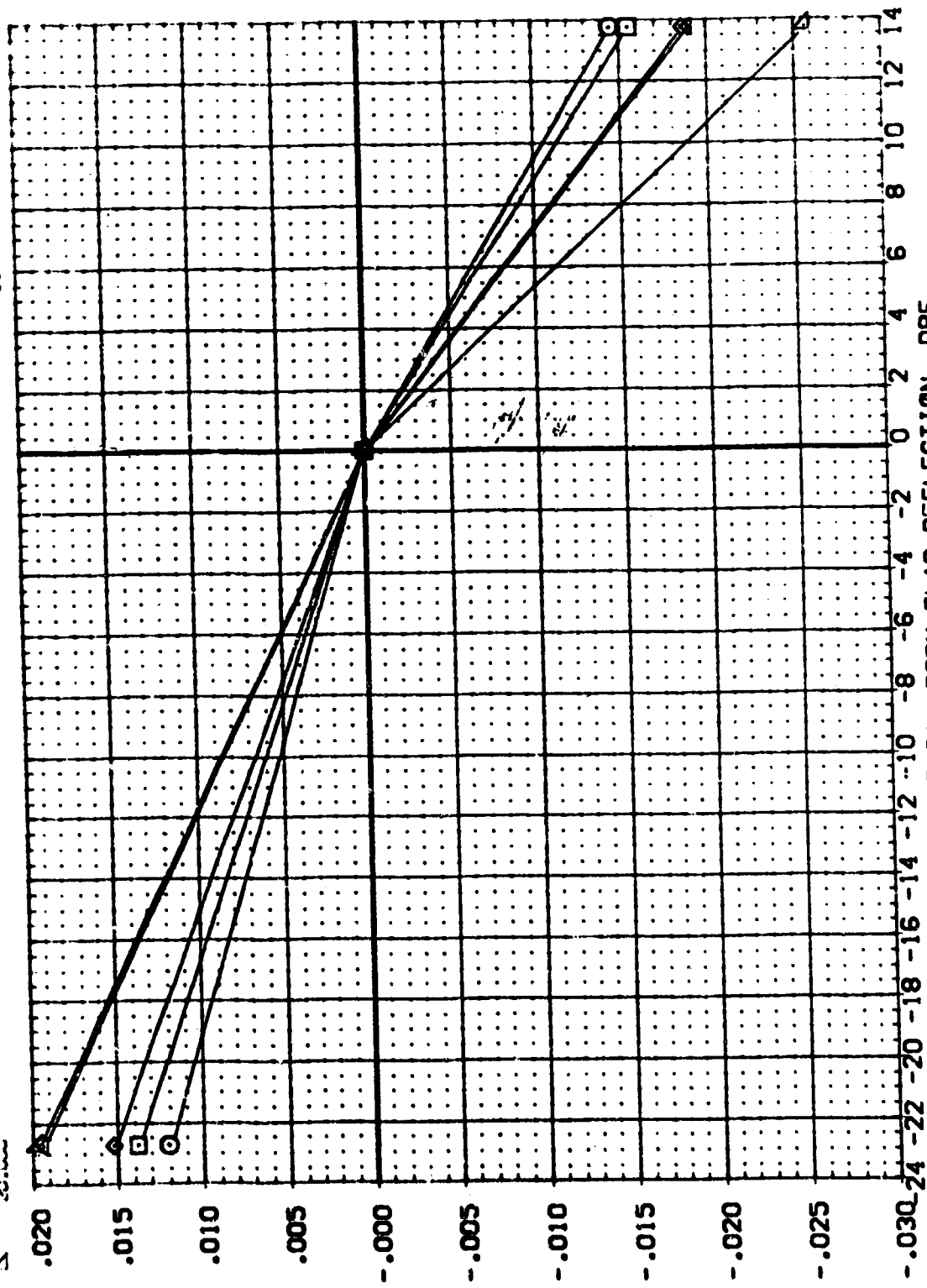


FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 1398

MSFC 574 (QA48) ORB 139B (F6)

REFERENCE INFORMATION
\$2.50.
111111

SCALE

8.



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750

DATE ~~OF~~ -22-13.

7101
7102

DATE _____
BY _____

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53

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THE TAP:
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000
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PARA
4.0
999.0

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45 BOX

MAC
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SPD

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7-10-68

5

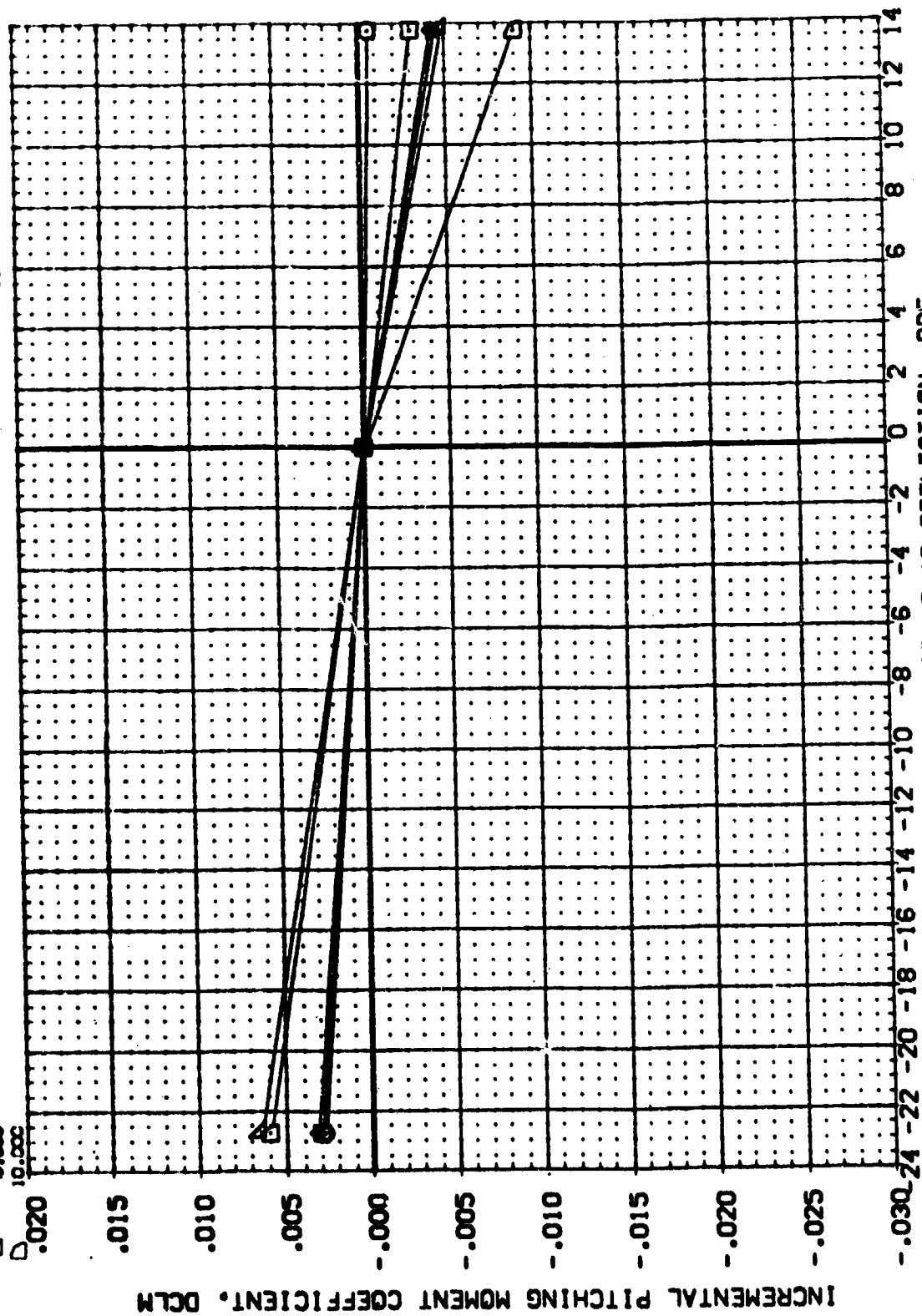


FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 1398

MSFC 574(OA48) ORB 139B (F6)

(10187)

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	12.000	MACH	.000 DATASET DBF	STEF .000 LREF 474.8000
[]	14.000	ELEVTR	.000 L87101 -22.750	BREF 936.7000
◇	16.000	SPDBRK	L87102 13.750	XAPP 838.7000
△	18.000			YAPP .0000
▽	20.000			ZAPP .0000
				SCALE .0010

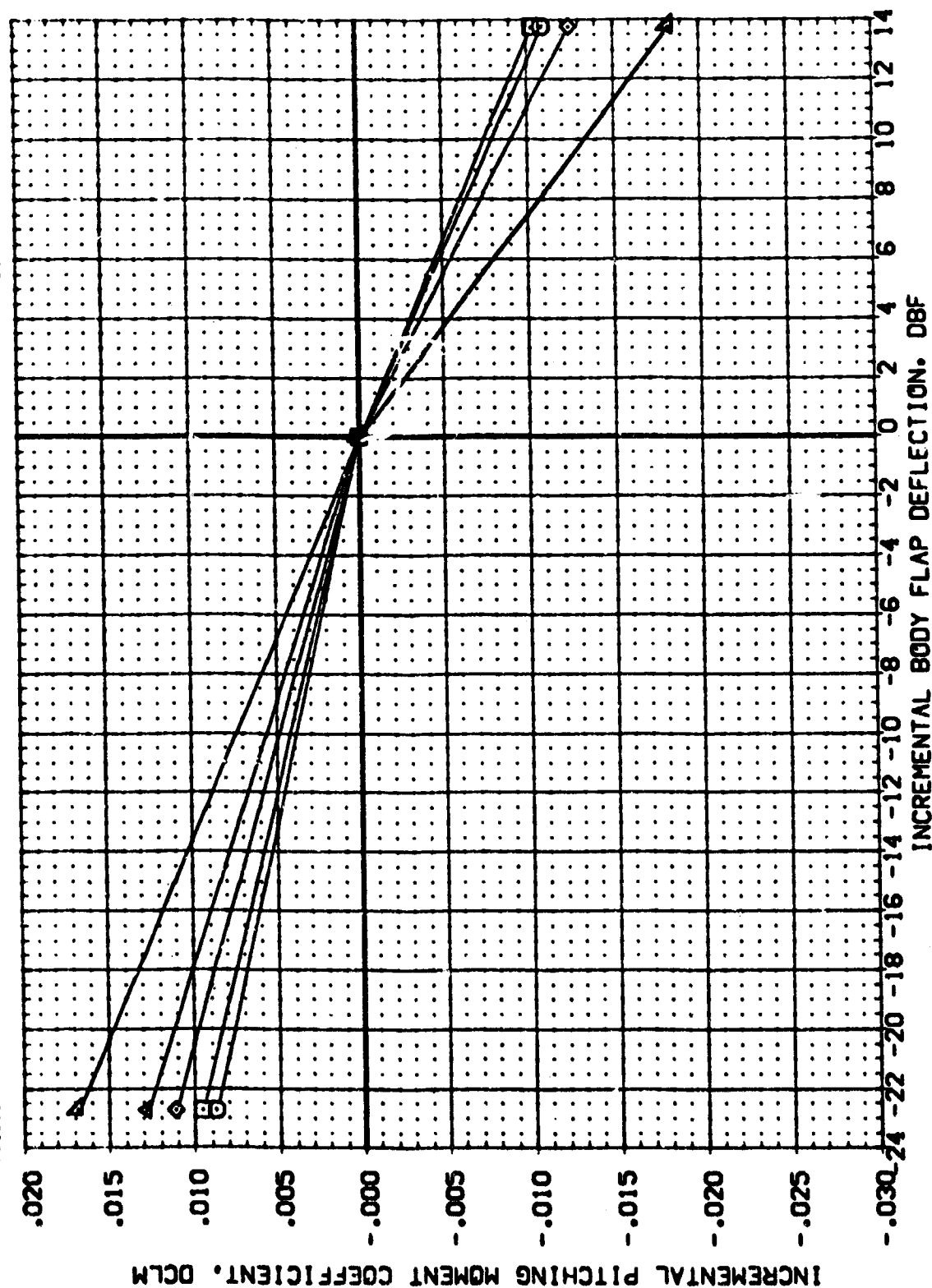


FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 139B

MSFC 574(0A48) ORB 1398 (F6)

(L87100)

ALPHA	20.000	MAC	2.590	BETA	.000	DATASET	DBF	DATA SOURCE	DBF	DATASET	DBF	SREF	2590.0000	SC.FT.
22.000	ELEVTR	.000	ALLRON	.000	L87100	-22.750	.000	L87104	.000	L87104	.000	LREF	474.8000	
24.000	SPOBRK	999.990			L87103	13.750						BREF	936.7000	
26.000												XMRP	836.7000	
28.000												YMRP	.0000	
30.000												ZMRP	.0000	
												SCALE	.0010	

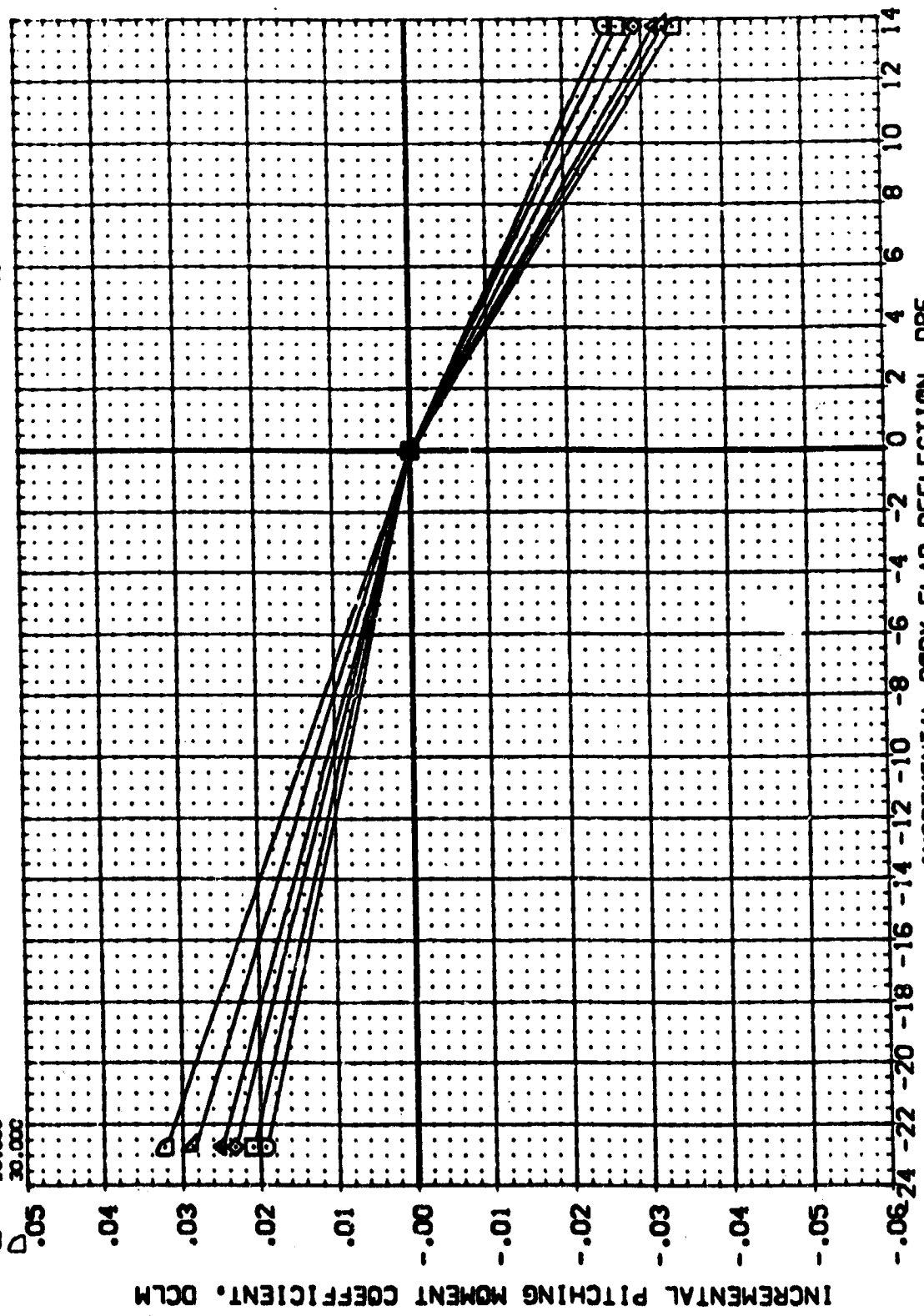


FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 1398
PAGE 1189

MSFC 574(CA48) ORB 139B (F6) (L87100)

ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
32.000	MACH 2.950	DBF .000	SREF 2690.0000
34.000	BETA .000	DATASET L87104	LREF 474.8000
36.000	AILRON .000	DBF -22.750	BREF 936.7000
38.000	ELEVTR 989.950	DATASET L87103	APRP 838.7000
40.000	SPDRK	DBF 13.750	VPRP .0000
			ZPRP .0000
			SCALE .0012

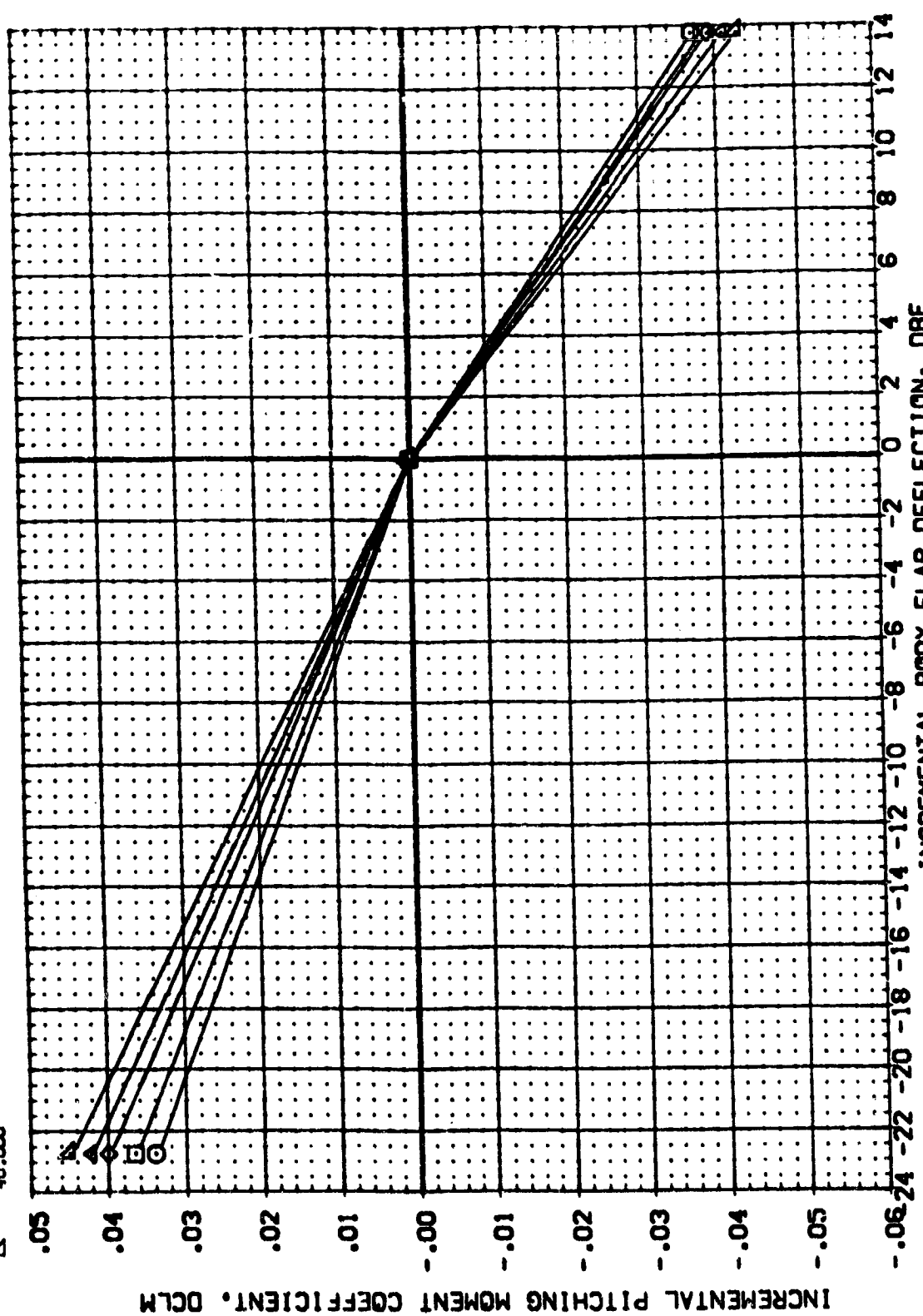


FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 139B
PAGE 119C

(L87100)

MSFC 574(0A48) ORB 139B (F6)

REFERENCE INFORMATION
SQ.F.T.
2690.0000
474.8000
936.7000
838.7000
0.0000
0.0000
0.0000
0.0040

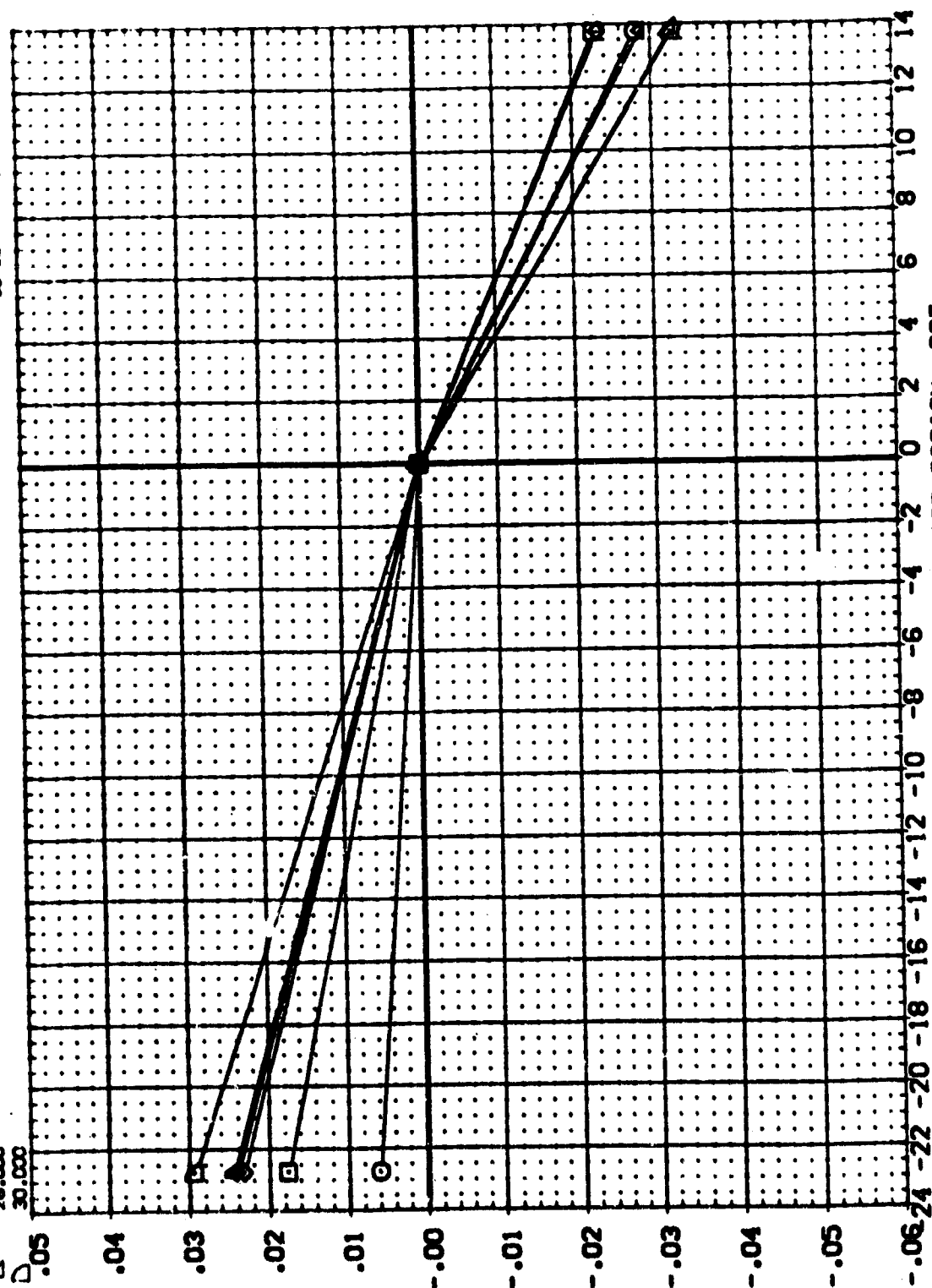
DATA SOURCE
DBF
L87104
-22.750
13.750

PARAMETRIC VALUES
BETA
ALLRON
989.990

MACH
ELEVTR
SP08RK

ALPHA
20.000
22.000
24.000
26.000
28.000
30.000

SYMBOL
□
◇
△
▽



INCREMENTAL BODY FLAP DEFLECTION, DBF

FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 139B

(L87100)

MSFC 574(0A48) ORB 139B (F6)

REFERENCE INFORMATION
SREF 2690.0000
LREF 474.8000
BREF 938.7000
XPROP 838.7000
YPROP .0000
ZPROP .0000
SCALE .0E+15

DATA SOURCE

DBF
-22.750
13.750

DATASET
L87104
L87100
L87103

PAR TRIC VALUES

BETA

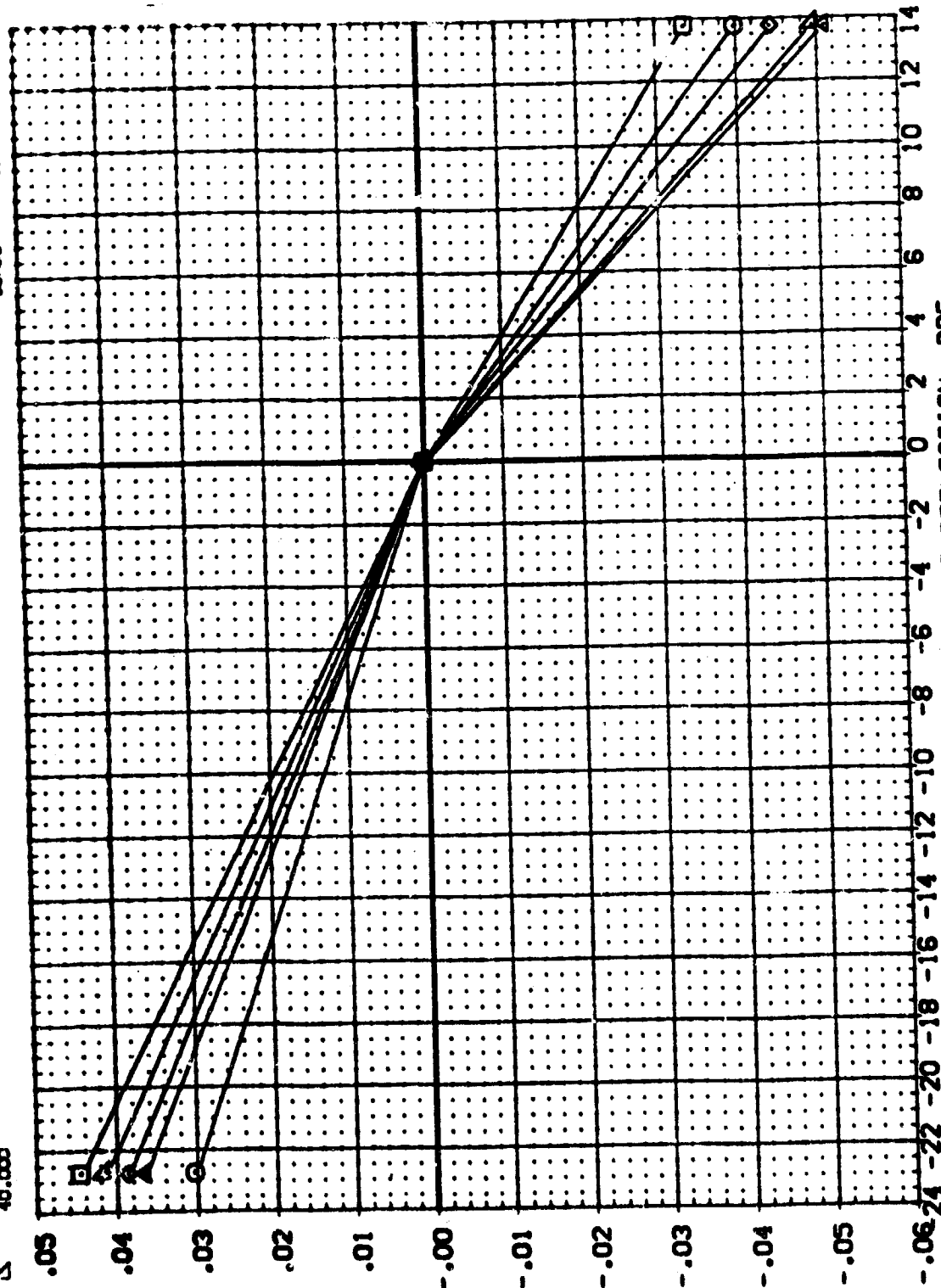
AILRON

.000
999.990

MACH
ELEVTR
SPDRK

ALPHA
32.000
34.000
36.000
38.000
40.000

SYMBOL
□
◇
△
▽



INCREMENTAL BODY FLAP DEFLECTION, DBF

FIG. 34 INCREMENTAL BODY FLAP (EXTENDED CHORD) EFFECTIVENESS FOR ORBITER 139B

MSFC 574 (QA48) CRB 139B W/ALT NCSE

REFERENCE INFORMATION
2690 0000
474 8000
936 7000
938 7000
0000 0000
0000 0000
0000 0000

ZZZZZ
\$2.51.

SCALE
ZMPP
YMPP
XMPP
BREF
LREF
SREF

DATESET DBF .000
L67031

DATA SOURCE
DBF
-14,250
13,750

DATASET
 L87044
 L87046

PARAMETRIC VALUES

BETA

POSITIVE

88.

8.

MACH

ELEVTR

13

000.

2.000

2

SYMBOL

DL

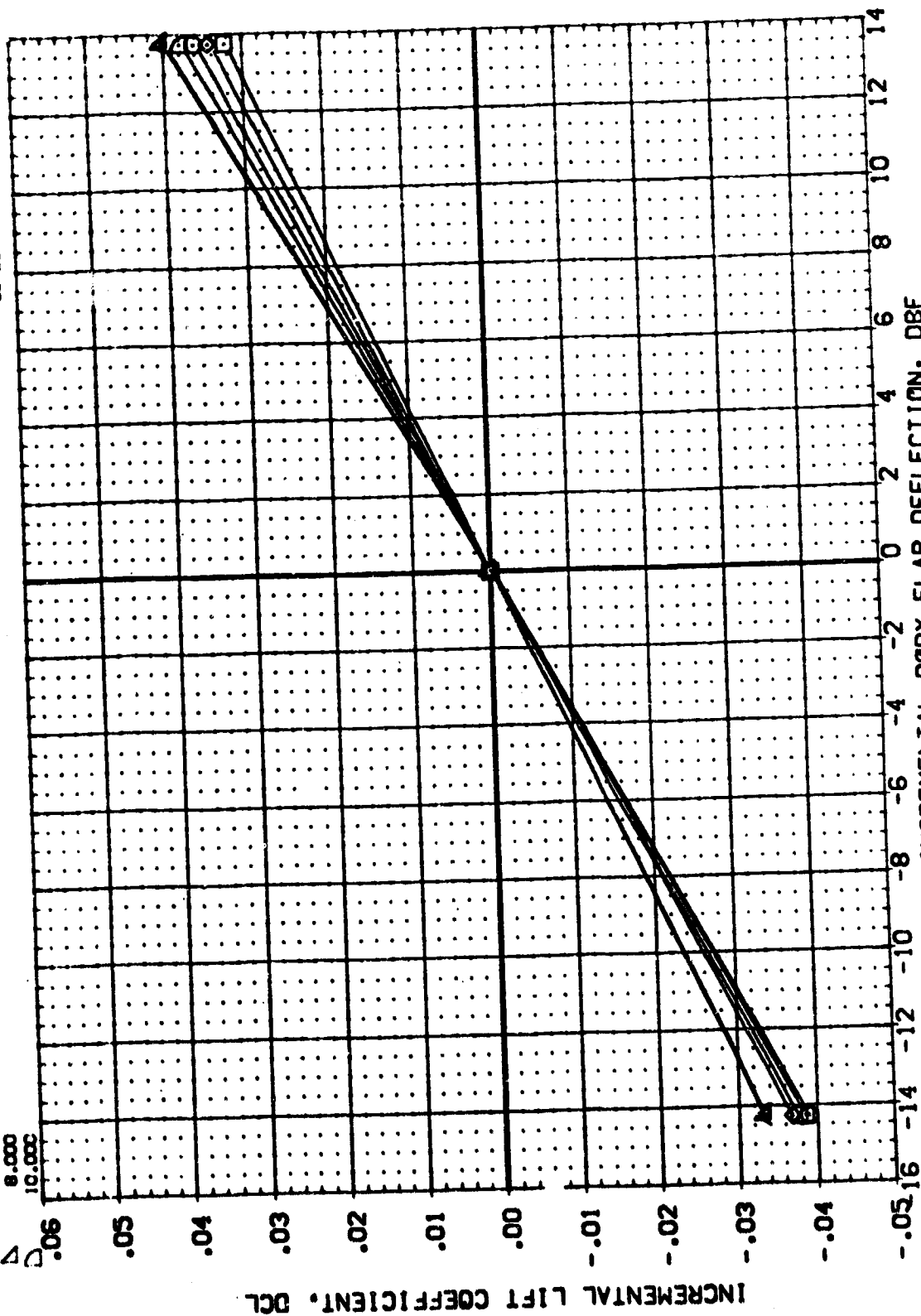


FIG. 35

MSFC 574(0A48) ORB 139B W/ALT NOSE

(L87044)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
○	12.000		.600	BETA	.000	DBF	SREF	2690.0000
□	14.000	ELEVTR	.000	AILRON	.000	DBF	LREF	474.8000
◇	16.000	SPDRBK	999.990		.000	DBF	BREF	936.7000
△	18.000				.000	DBF	XREF	838.7000
▽	20.000				.000	DBF	YREF	.0000
					.000	DBF	ZREF	.0000
					.000	DBF	SCALE	.0040
					.000	DBF		52.51

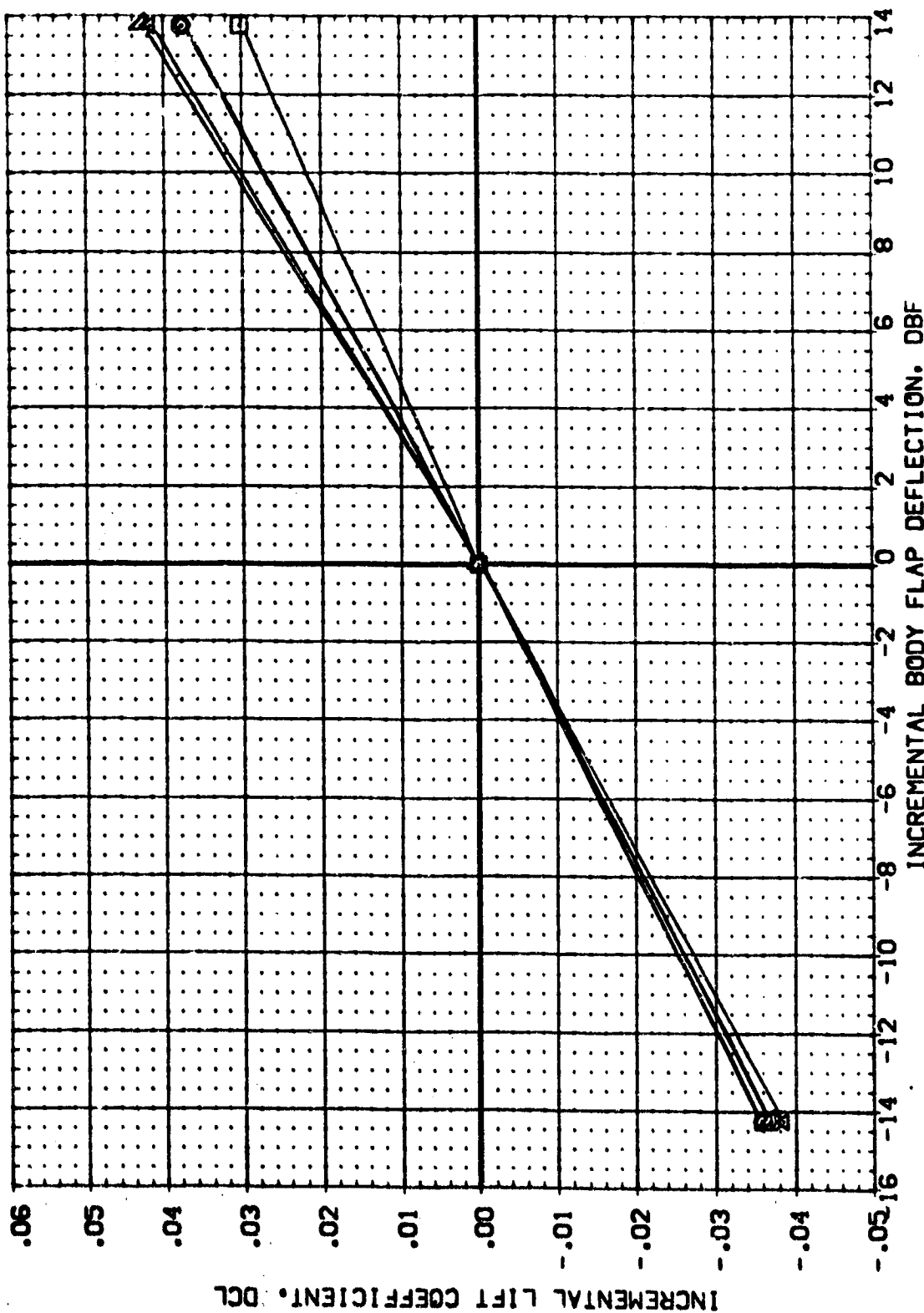


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

(L87044)

MSFC 574(0A48) ORB 139B W/ALT NOSE

SYMBOL		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	.000	MACH	.500	BETA	.000	SREF	2690.0000
	2.000	ELEVTR	.000	AILRON	.000	LREF	474.8000
	4.000	SPDRK	999.990			SREF	936.7000
	6.000					XPRP	838.7000
	8.000					YPRP	.0000
	10.000					ZPRP	.0000
						SCALE	.0010

SC.F.T.
N.N.N.N.N.

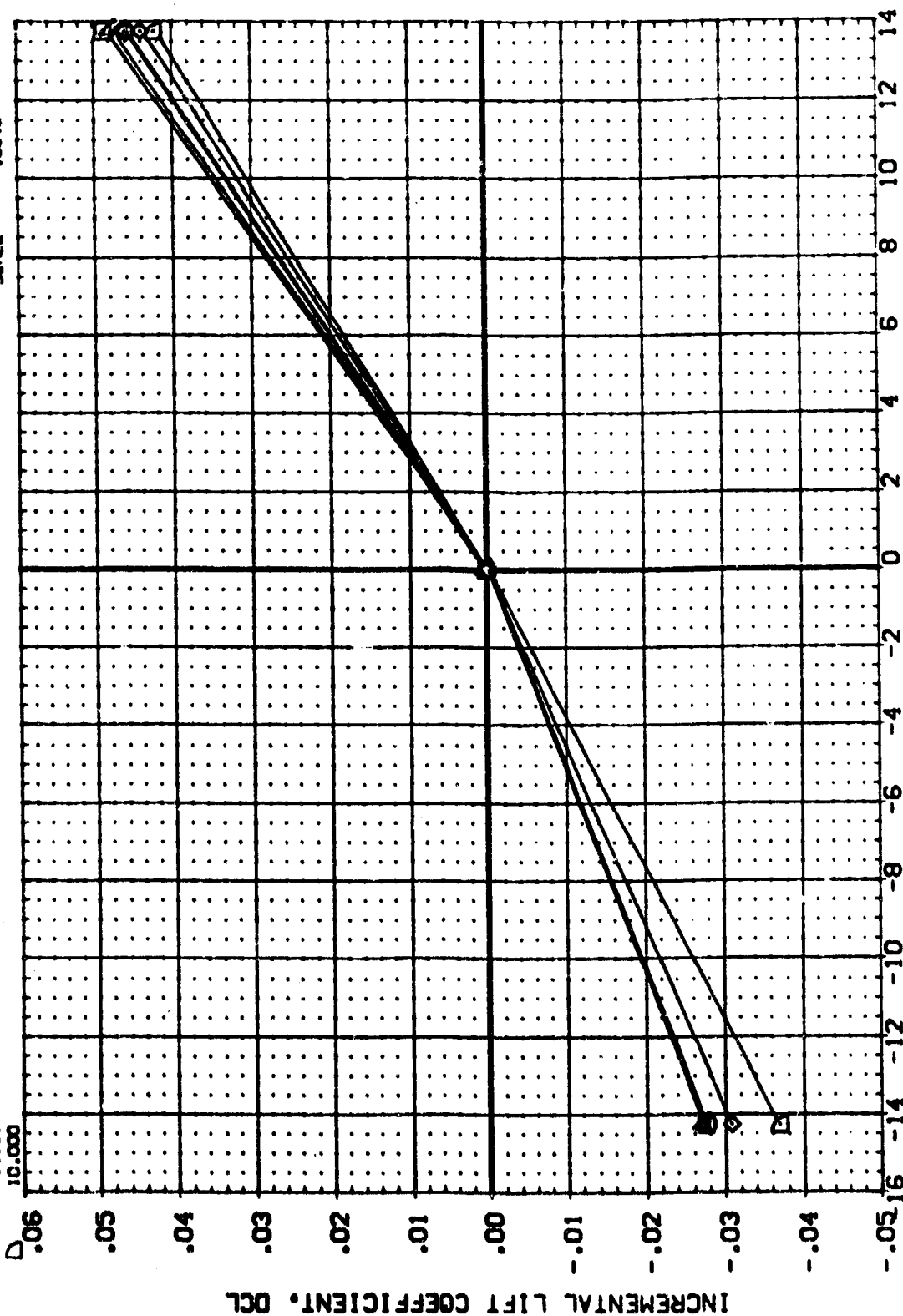


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

A graph showing the Incremental Lift Coefficient (Y-axis, ranging from -0.05 to 0.06) versus Angle of Attack (X-axis, ranging from -16 to 14 degrees). The graph displays several linear relationships, indicating that the lift coefficient is directly proportional to the angle of attack for the airfoils tested. The lines are labeled with airfoil numbers: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100. The lines are plotted on a grid with major lines every 2 units on the X-axis and every 0.01 units on the Y-axis. The lines are labeled with airfoil numbers: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100. The lines are plotted on a grid with major lines every 2 units on the X-axis and every 0.01 units on the Y-axis. The lines are labeled with airfoil numbers: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 1398 WITH ALT. NOSE

MSFC 574(0A48) ORB 139B W/ALT NOSE (L87044)

ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
.000	MACH 1.200	DBF	SREF 2690.0000
2.000	ELEVTR .000	DATASET L87044	LREF 474.8000
4.000	SPDRK 999.990	DBF -14.250	BRFF 936.7000
6.000		DBF 13.750	YMRP 836.7000
8.000			ZMRP .0000
10.000			SCALE .0040

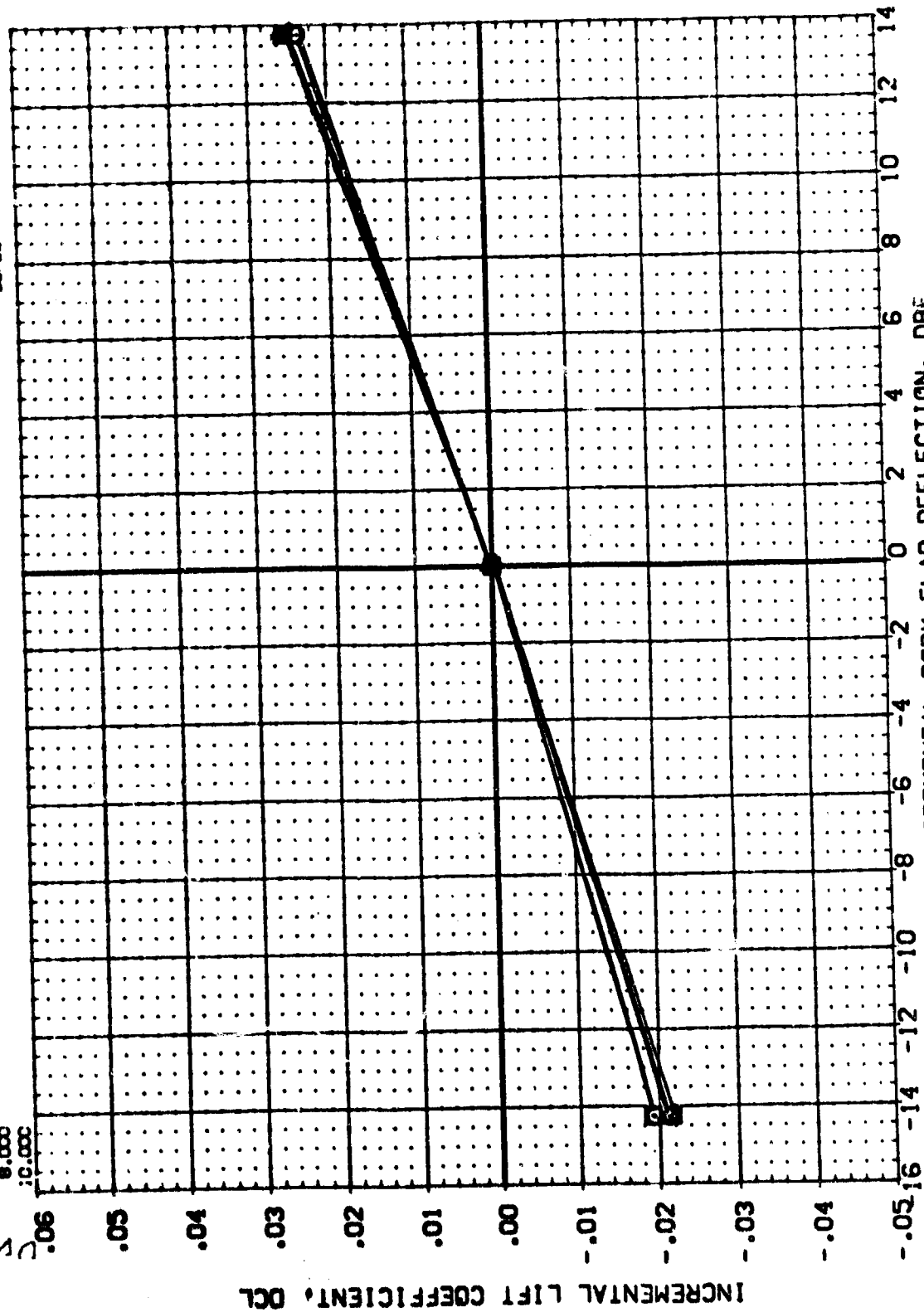


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

MSEC 574(0A48) QRB :39B W/ALT NCSE

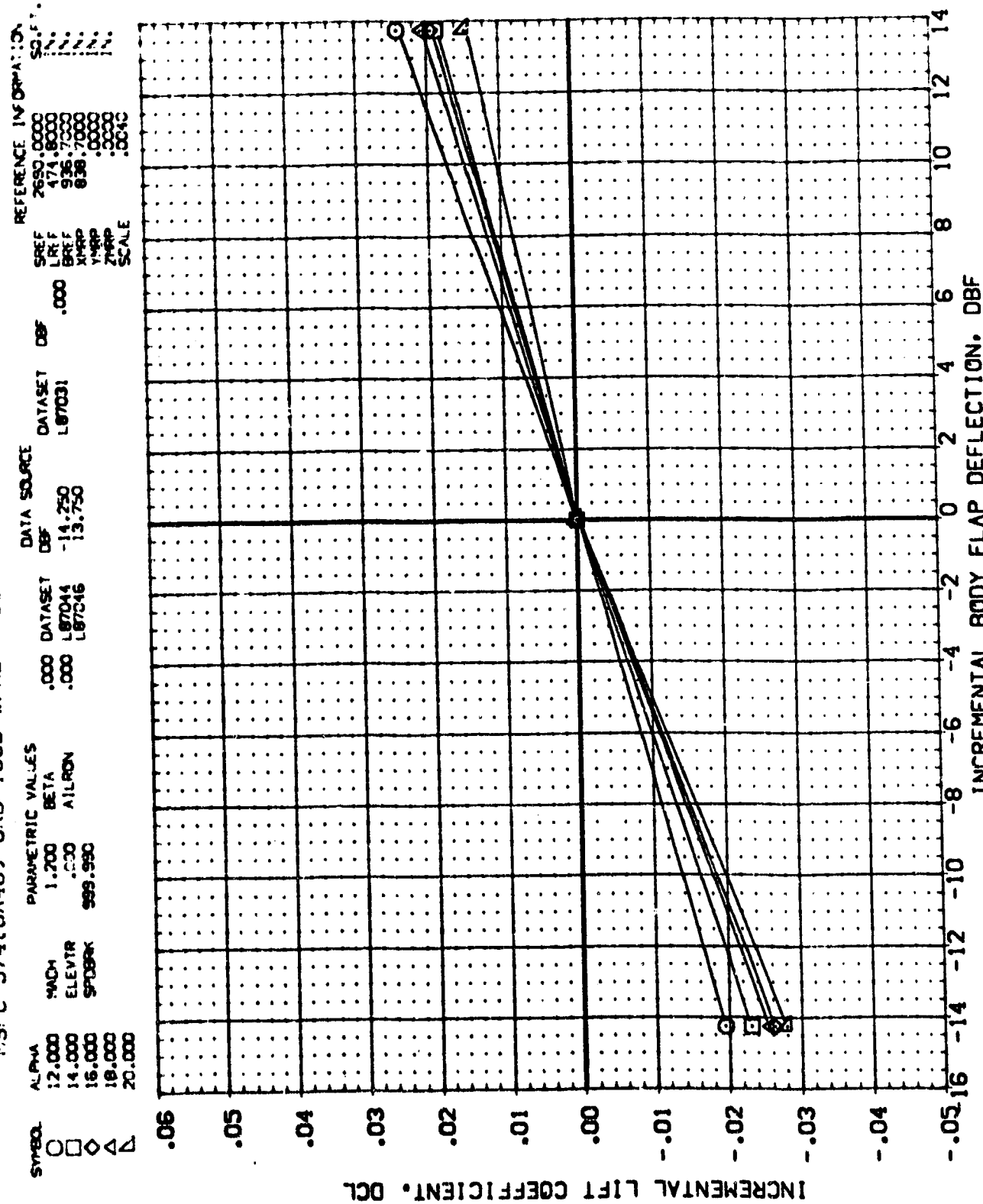


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

MSFC 574(0A48) ORB 1398 W/ALT NOSE

(L87044)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	.000		BETA	.000	SREF 2690.0000
□	2.000	ELEVTR	.000	.000	LREF 474.8000
◇	4.000	970BRK	999.990	-14.750	SREF 936.7000
△	6.000		AILRON	13.750	XREF 838.7000
▽	8.000				YREF .0000
△	10.000				ZREF .0000
▽					SCALE .0040

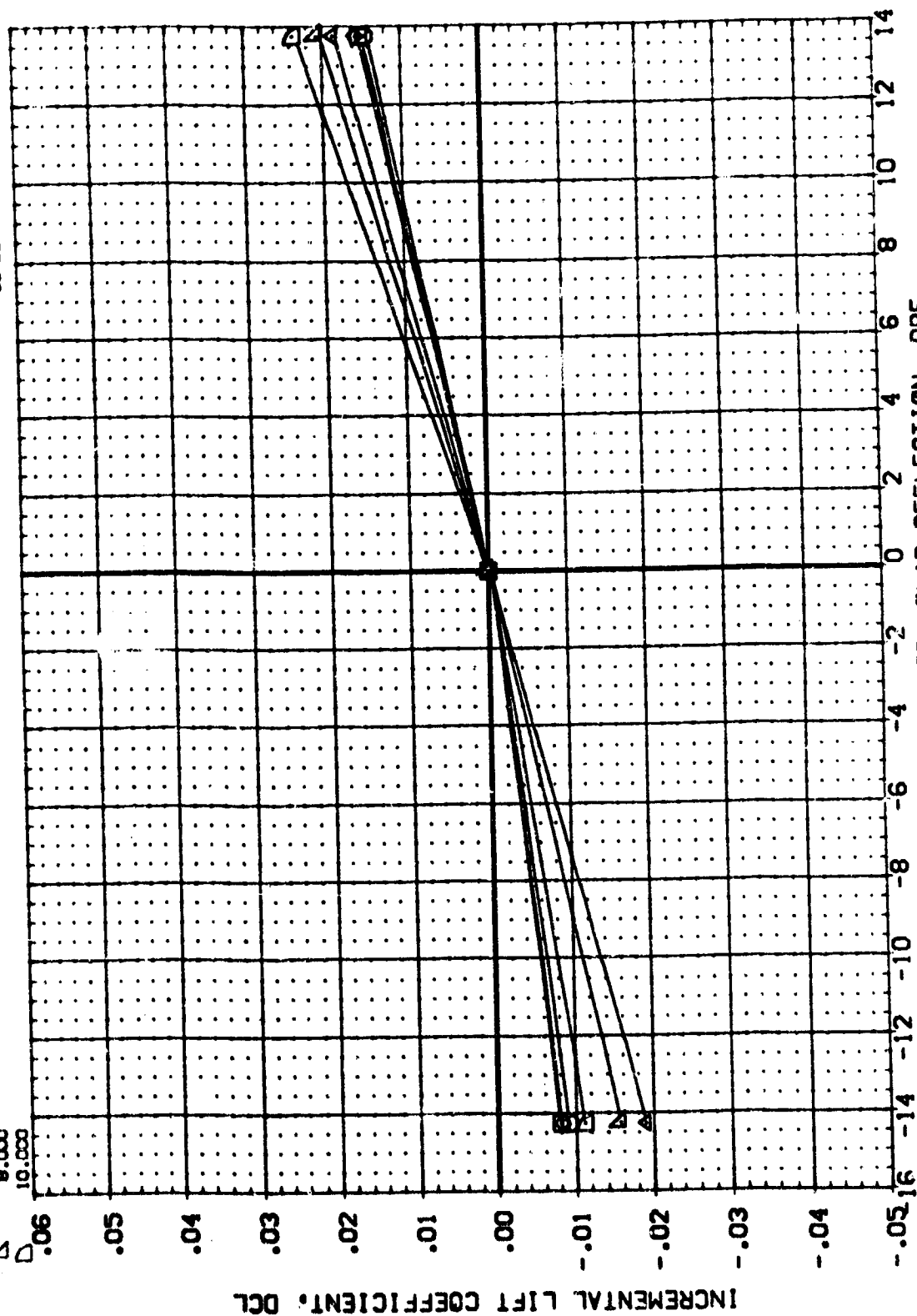


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 1398 WITH ALT. NOSE

(L87044)

MSFC 574(0A48) ORB 1398 W/ALT NOSE

PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
ALPHA	MACH	BETA	ALTRON	DBF	DBF	SREF	2690.0000	52.11.	
12.000	1.960	.000	.000	L87044	.000	LREF	474.8000	N.	
14.000	ELEVTR	.000	.000	L87044	.000	SPREF	936.7000	N.	
16.000	SPDRK	999.990	.000	L87046	.000	WREF	838.7000	N.	
18.000						YREF	.0000	N.	
20.000						ZREF	.0000	N.	
						SCALE	.0040		

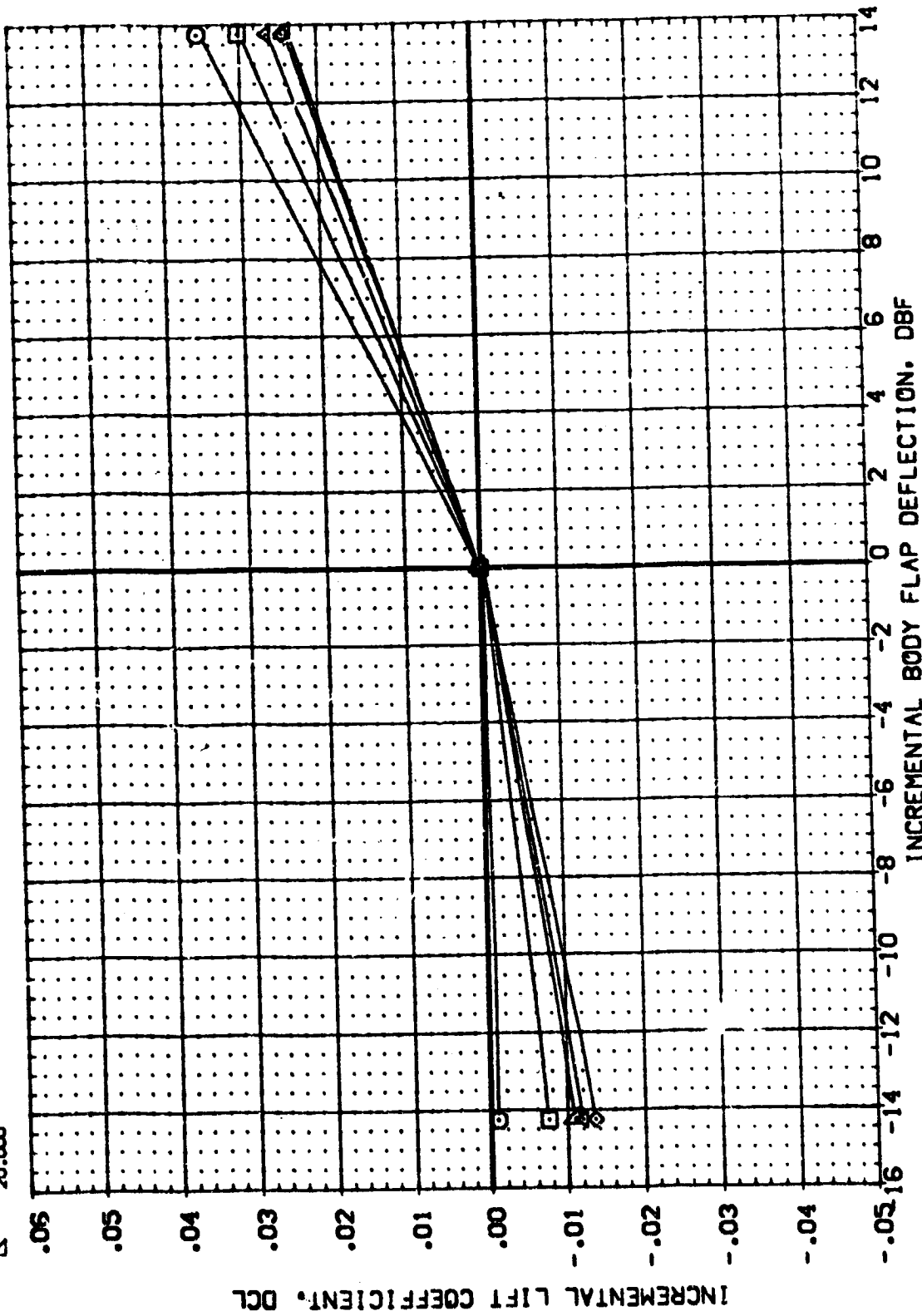


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 1398 WITH ALT. NOSE

MSFC 574(0A48) ORB 139B W/ALT NOSE

[L87044]

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DBF	DBF	REF	SCALE
□	.000	2.990	BETA	L87044	.000	.000	2690.0000	SC.F.T.
□	2.000	.000	AILRON	L87046	.000	.000	474.8000	
□	4.000	999.990					936.7000	
□	6.000						838.7000	
□	8.000						.0000	
□	10.000						.0000	
							.0040	

REFERENCE INFORMATION

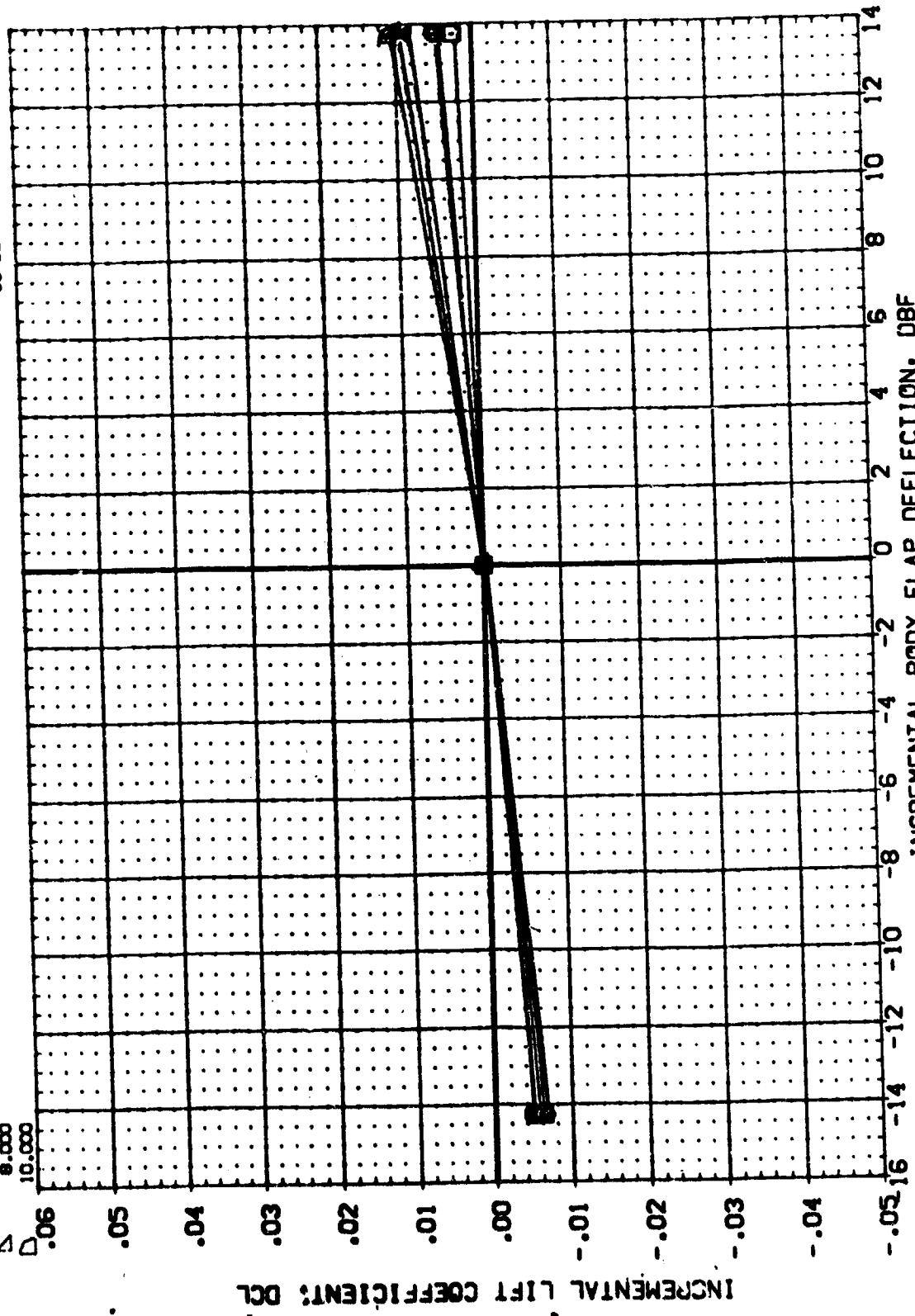


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

PAGE 1201

(L87044)

MSFC 574(0A48) ORB 139B W/ALT NOSE

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DBF	REFERENCE INFORMATION
010	12.000		2.990 BETA		.000		SREF 2690.0000
010	14.000		.000 AILRON		.000		LREF 471.8000
010	16.000		999.990				BREF 936.7000
010	18.000						XREF 838.7000
010	20.000						YREF .0000
							ZREF .0000
							SCALE .0040

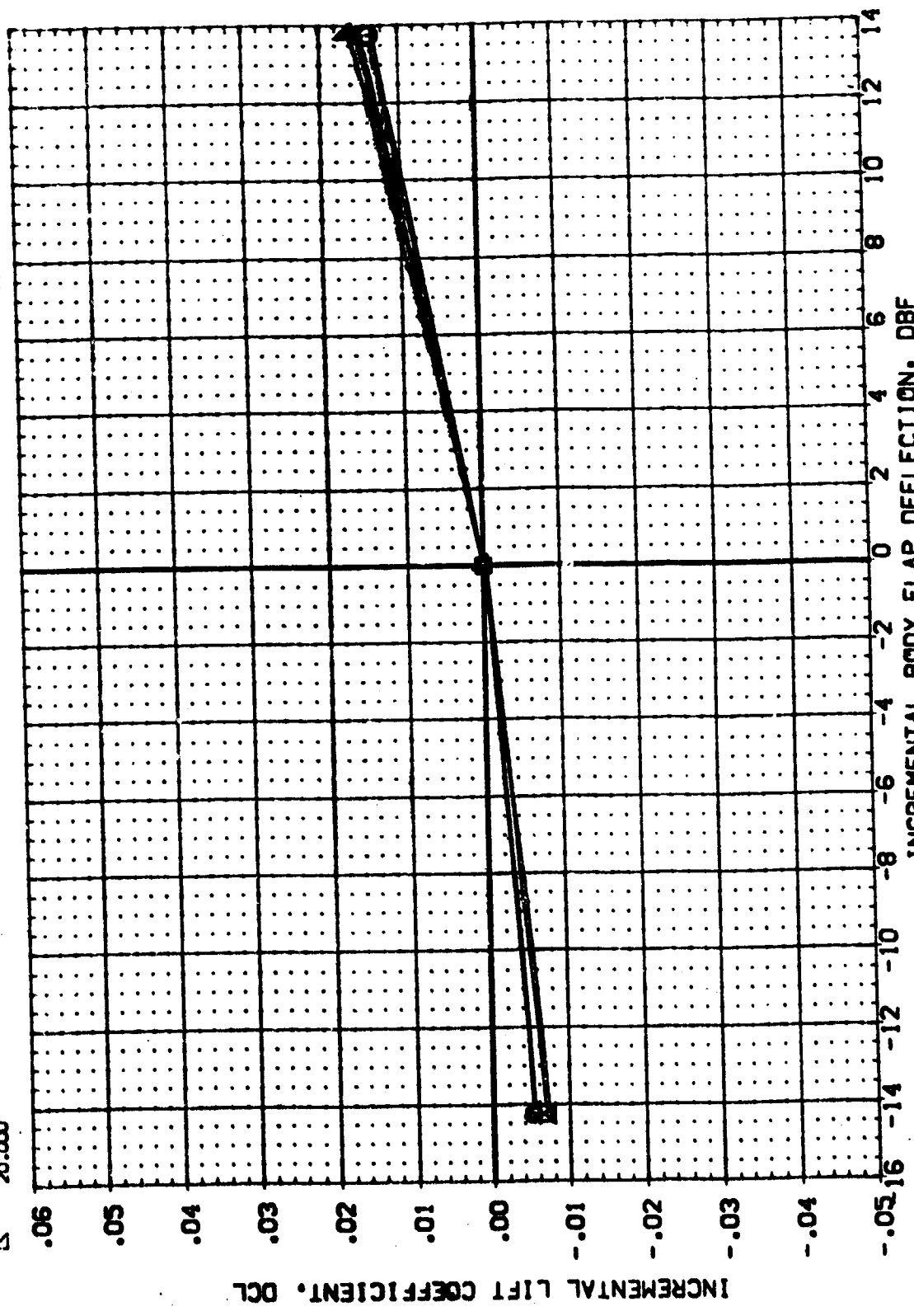


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

(L87044)

MSFC 574(0A48) ORB 139B W/ALT NOSE

REFERENCE INFORMATION
SQ.FT.
IN.

SREF 2690.0000
LREF 474.8000
BREF 936.7000
XPRP 838.7000
YPRP .0000
ZPRP .0000
SCALE .0010

DATA SOURCE
DBF -14.750
13.750

PARAMETRIC VALUES
BETA
AILRON

ALPHA
MACH
ELEVTR
SPDRK

SYMBOL
0
1
2
3
4
5
6
7
8
9
10

INCREMENTAL LIFT COEFFICIENT, DCL

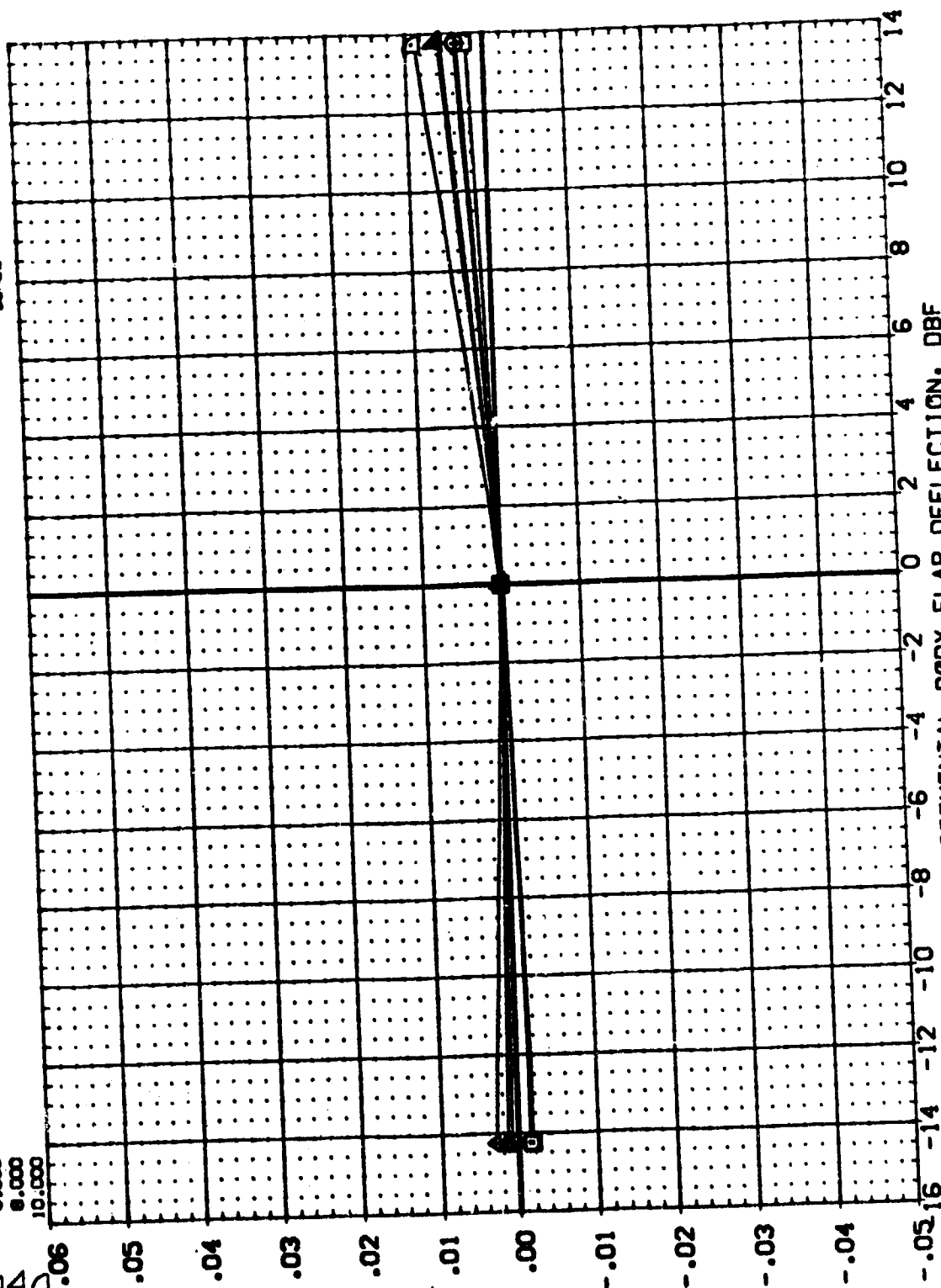


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE
PAGE 1203

MSFC 574(0A48) GRB 1398 W/ALT NCSE

REFERENCE IN OPERATION
2650.0000
174.8000
936.7000
938.7000
0000.0000
0000.0000
0040.0000

```

      DATASET DBF DBF
      L67031 .000
      SREF
      LREF
      BREF
      XREF
      YREF
      ZREF
      SCAN

```

DATA SOURCE
DBF
14.250
13.750

1,000 DATASET
1,000 L87044
1,000 L87046

VALUES
BETA
ALPHA

PARAMETRIC
4.960
.000
999.990

MACH
ELEVTR
SPDRK

ALPHA
12.000
14.000
16.000
18.000

SYNCRON 017044

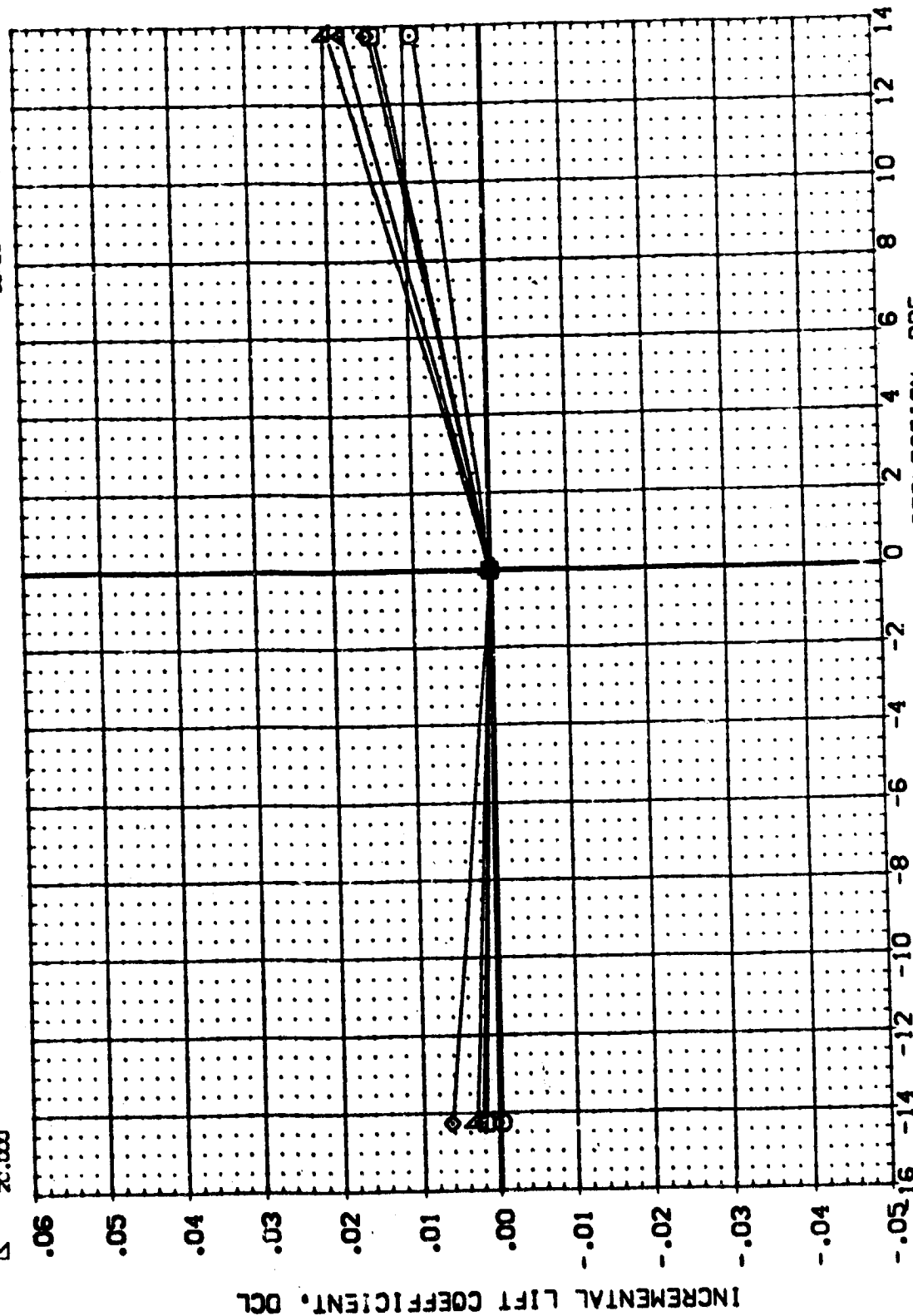


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

MSFC 574(0A48) ORB 1398 W/ALT NOSE

REFERENCE INFORMATION
SS-51
122277

SECRET

8

12

DATA 1 AS
L 0703

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DATE ~~05~~ -14-13

135

DATA
L 8704
L 8704

88

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53 6

VALU
BETA
A1190

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2.99
.00
9.99

20

SECRET

173
174
175

14 88888888

RRRRE

80510-10

2000

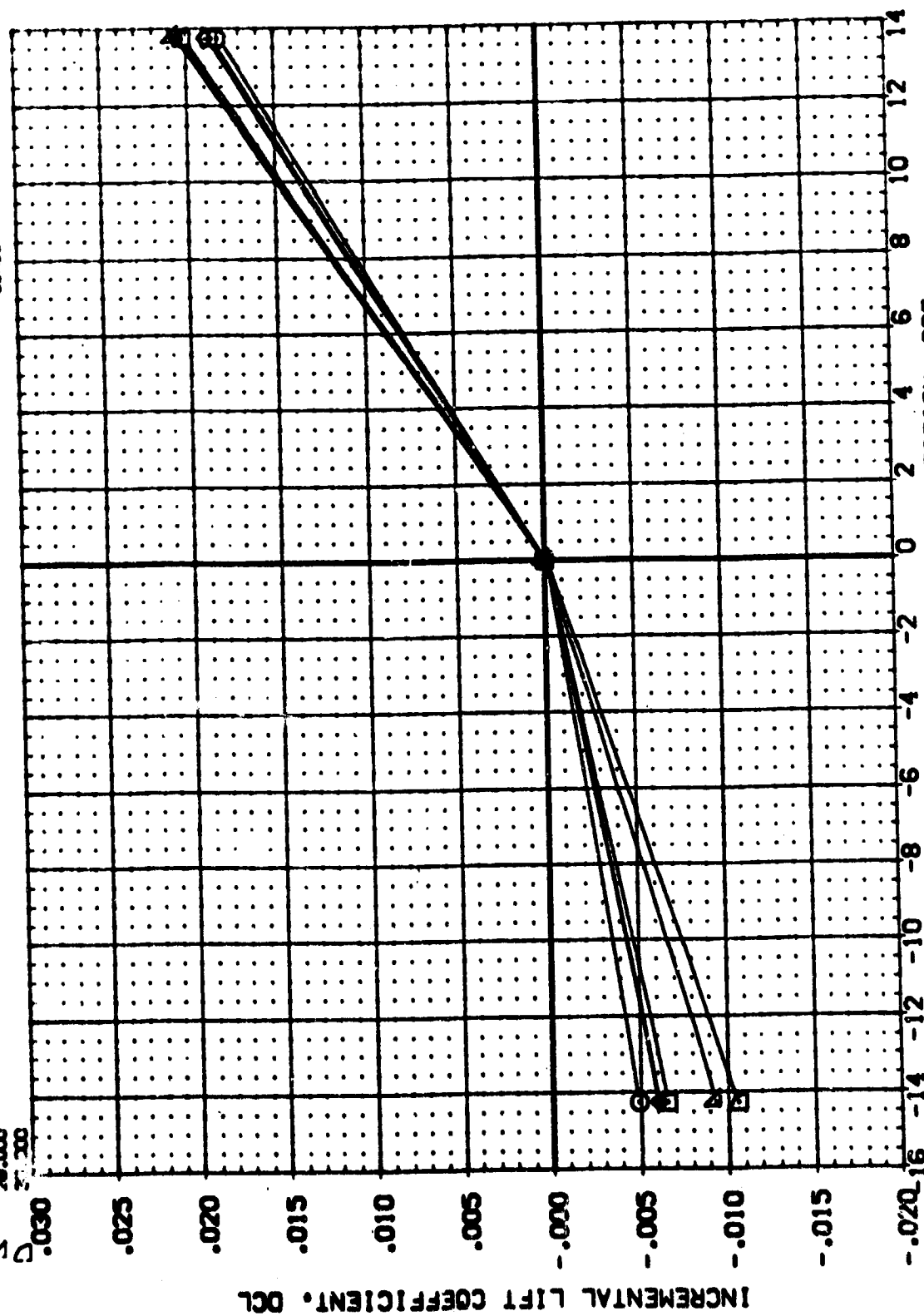


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 1398 WITH ALT. NOSE

(L87045)

MSFC 574(OA48) ORB 1398 W/ALT NOSE

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
□	32.000		BETA	DBF	SREF
□	34.000		AIRLEN	DBF	LREF
◇	36.000		999.990	DBF	BREF
△	38.000			DBF	XREF
▽	40.000			DBF	YREF
				DBF	ZREF
				DBF	SCALE

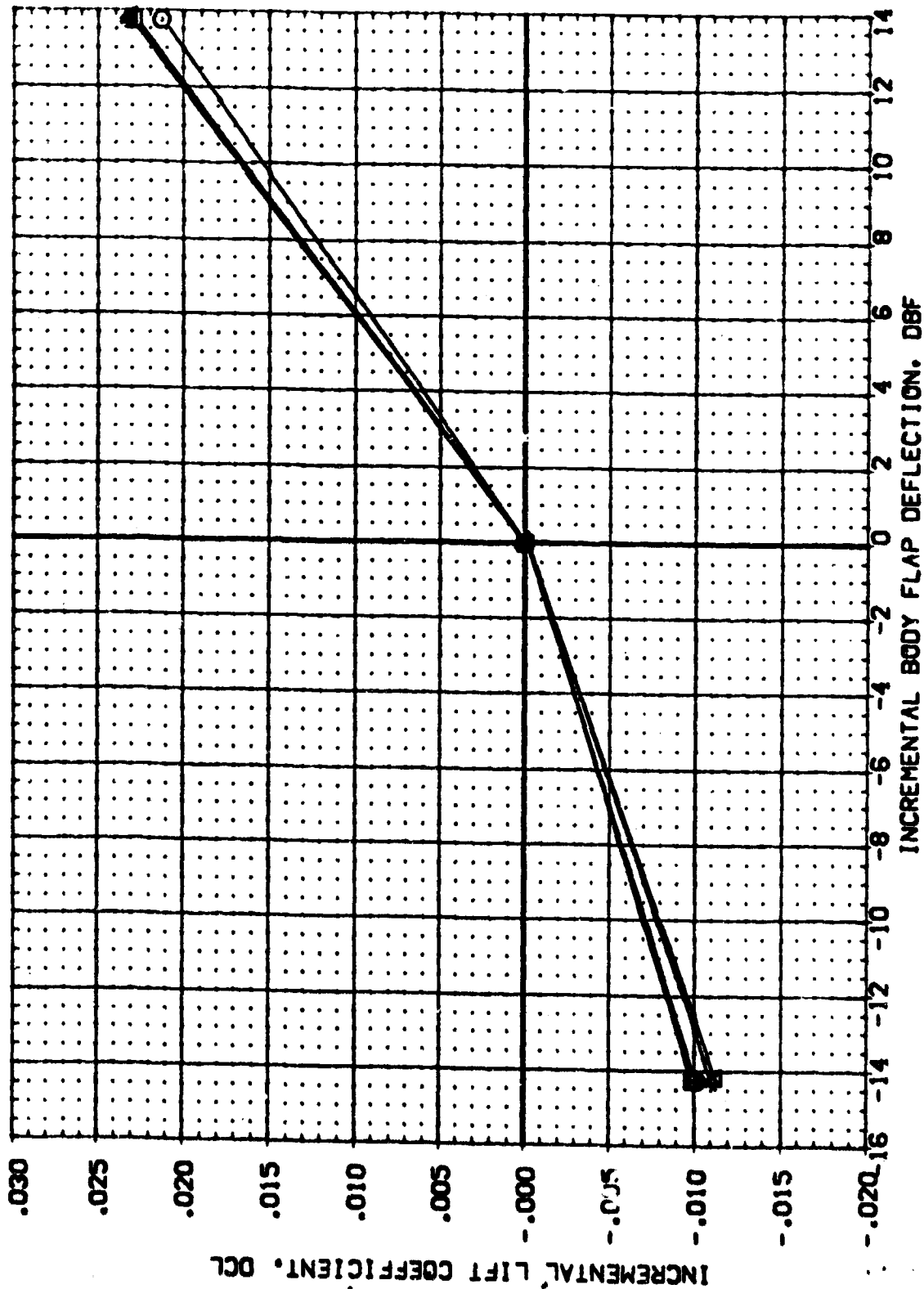


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 1398 WITH ALT. NOSE

(L87045)

MSFC 574(0A48) ORB 139B W/ALT NOSE

SYMBOL		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	20.000	MACH	4.560	BETA	.000	SREF	2690.0000
ELEVTR	27.000	ELEVTR	.000	ALT RON	.000	LREF	474.8000
SPDRBK	24.000	SPDRBK	999.99C			BREF	936.7000
	26.000					XREF	838.7000
	28.000					YREF	.0000
	30.000					ZREF	.0000
						SCALE	.0040

50.000

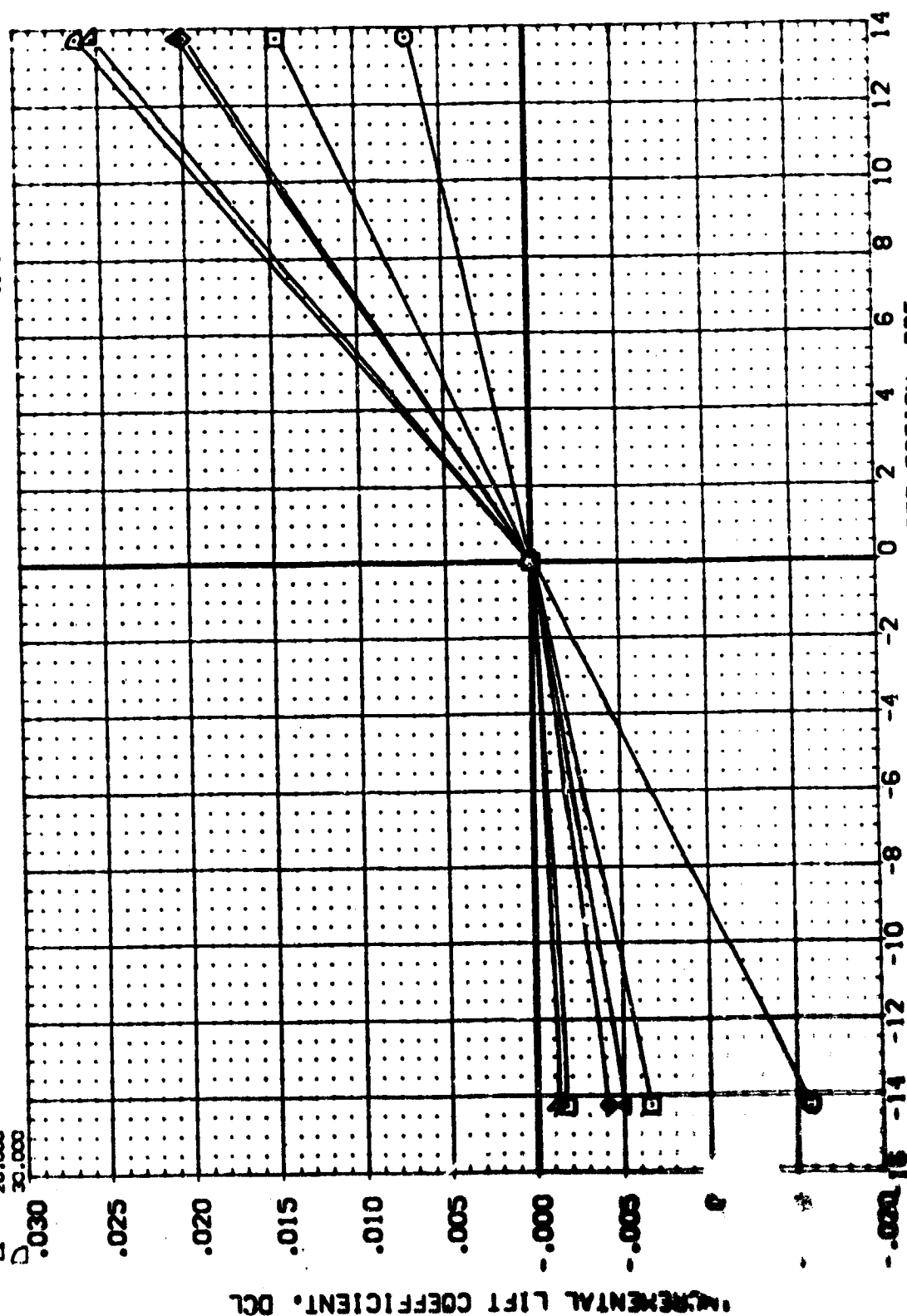


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

(L87045)

MSFC 574(0A48) ORB 139B W/ALT NCSE

SYMBOL	ALPHA	HACH	PARAMETRIC VALUES		DATA SOURCE	DATASET	DBF	REFERENCE INFORMATION
□	32.000	ELEVTR	4.960	BETA	DBF	L87032	.000	SREF 2690.0000
◇	34.000	SPDRK	.000	AIRLN	DBF	L87045	-14.250	LREF 474.8000
△	36.000		999.990		DBF	L87047	13.750	BREF 936.7000
▽	38.000							XMRP 838.7000
	40.000							YMRP .0000
								ZMRP .0000
								SCALE .0010
								SQ.FT. 11.1111

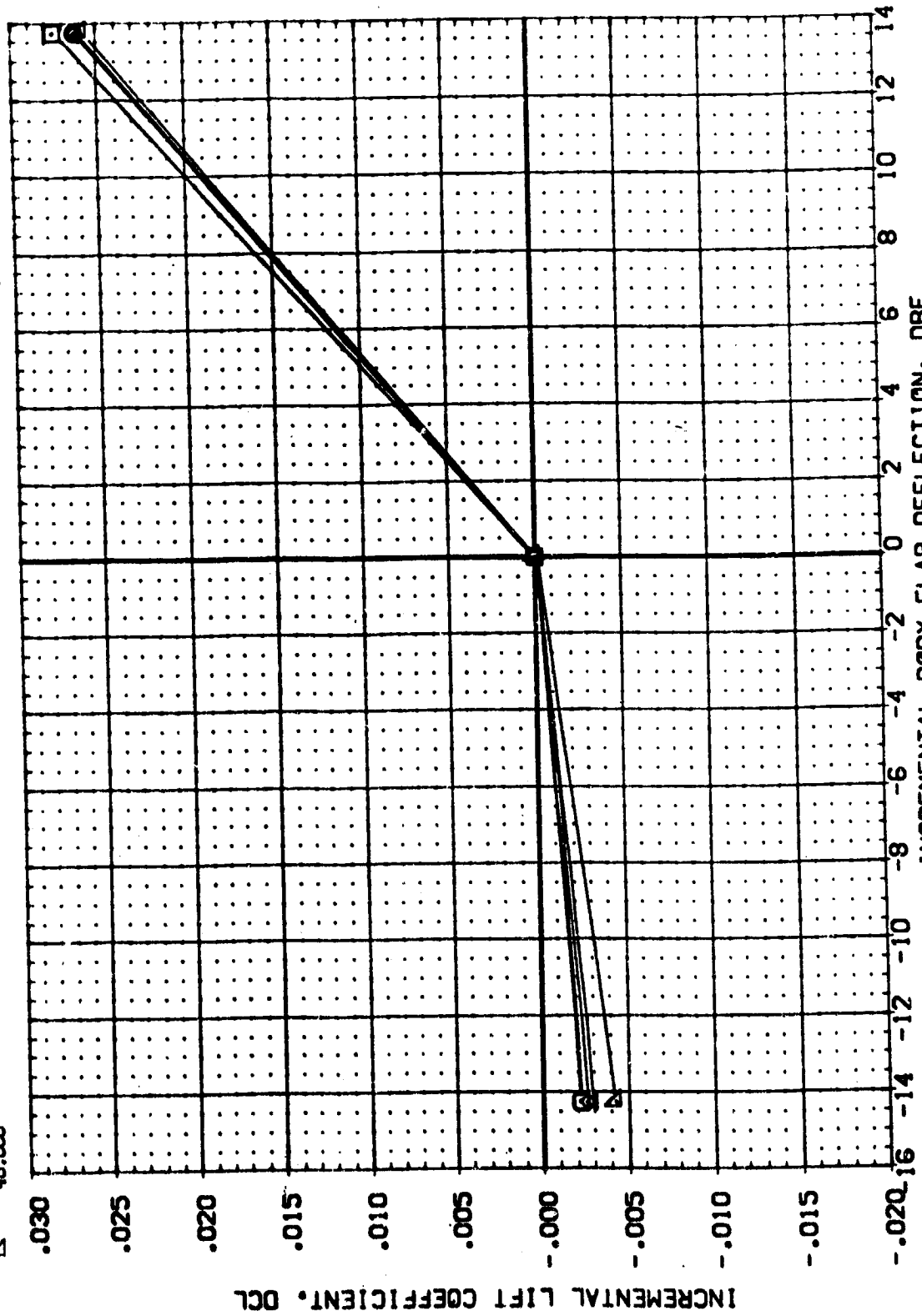


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

MSFC 574(OA48) ORB 139B W/ALT NOSE

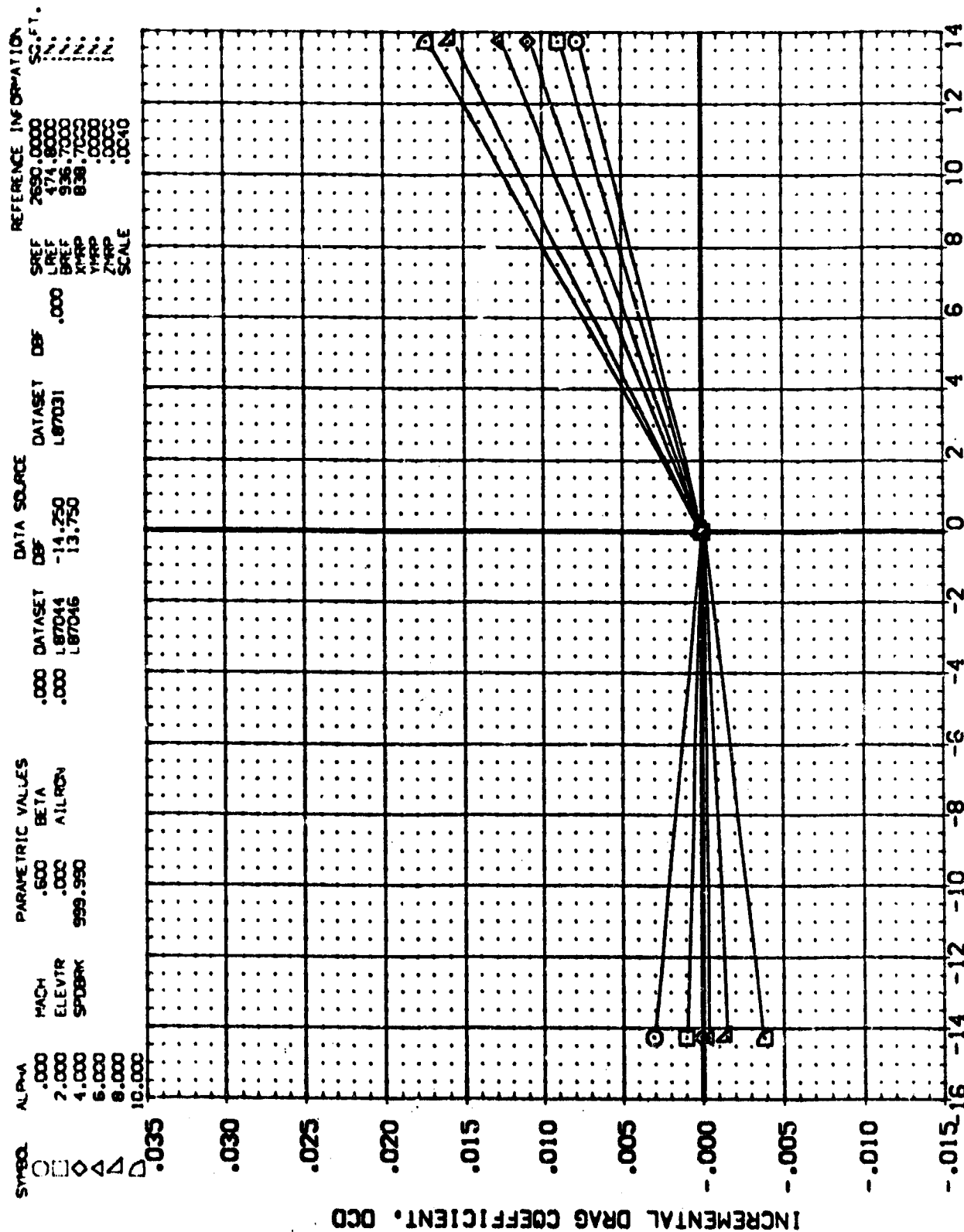


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

(L87044)

MSFC 574(0A48) ORB 139B W/ALT NOSE

PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION	
ALPHA	MACH	BETA	DATASET	DB	SREF	SO.F.T.
12.000	.600	.000	.000	DB	2690.0000	12.0000
14.000	ELEVTR	.000	L87044	-14.250	LREF	474.8000
16.000	9DBRK	999.990	.000	13.750	BREF	936.7000
18.000			L87046		XMRP	838.0000
20.000					YMRP	.0000
					ZMRP	.0000
					SCALE	.0010

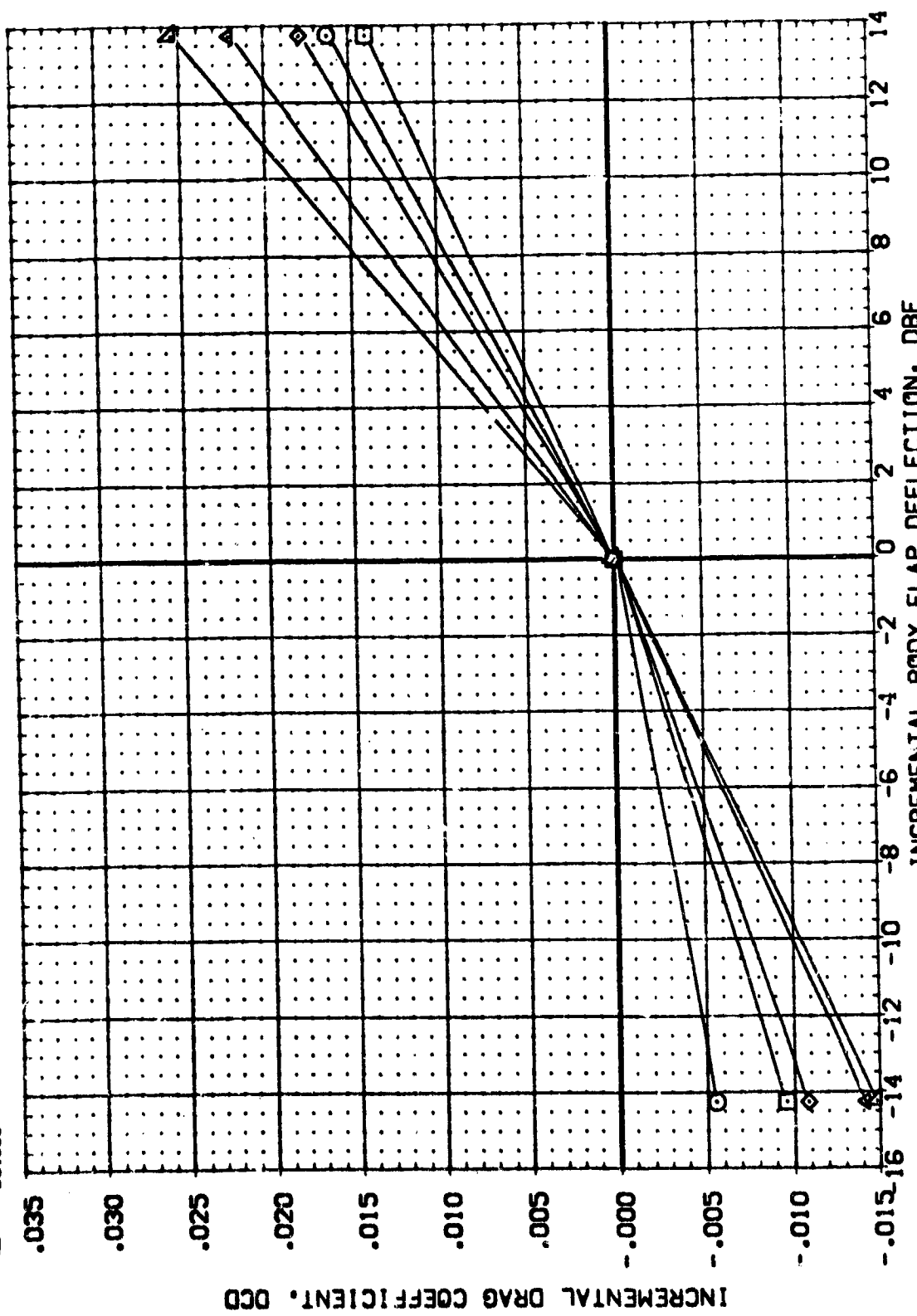


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

VSFC 574(CA48) ORB 1398 W/ALT NOSE

(L87044)

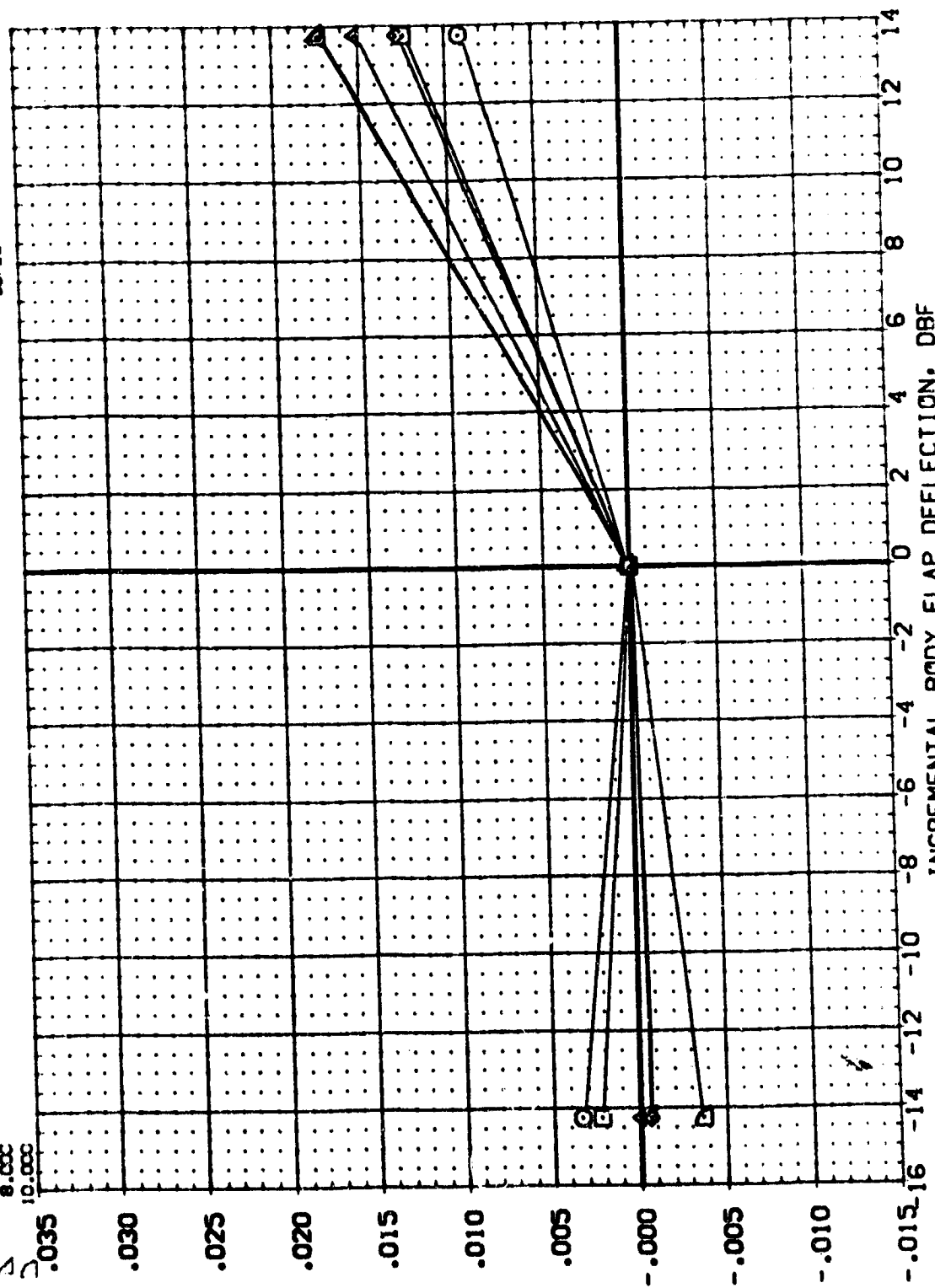
REFERENCE INFORMATION
 SREF 2690.0000
 LREF 474.8000
 BREF 936.7000
 XREF 936.7000
 YREF .0000
 ZREF .0000
 SCALE .0040

DATA SOURCE
 DBF -14.250
 13.750

PARAMETRIC VALUES
 SOC .500
 BETA .000
 AIRCN .000
 SPOBR 999.920

ALPHA
 .000
 2.000
 4.000
 6.000
 8.000
 10.000

SYMBOL
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INCREMENTAL BODY FLAP DEFLECTION, DBF

INCREMENTAL DRAG COEFFICIENT, DCD

FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 1398 WITH ALT. NOSE

(L87044)

MSFC 574(0A48) ORB 1398 W/ALT NOSE

SYMBOL		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
		MAC	BETA	DBF	DBF	SREF	SCALE
○	12.000	.900	.000	.000	.000	2690.0000	.0040
□	14.000	.000	.000	.000	.000	474.8000	.0040
△	16.000	.999.990	.000	.000	.000	936.7000	.0040
	18.000					838.7000	.0040
	20.000					7490.0000	.0040

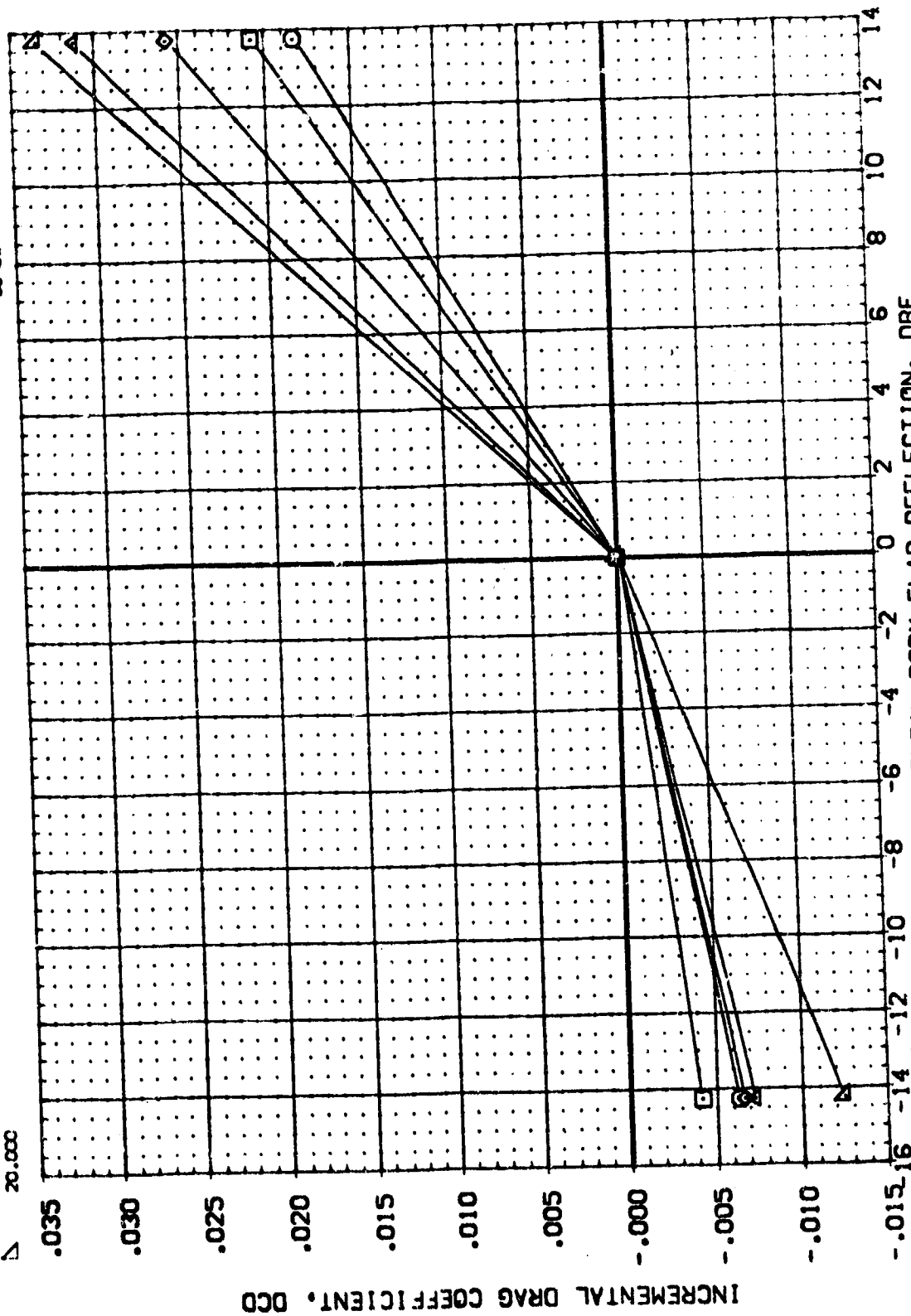


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 1398 WITH ALT. NOSE

MSFC 574(0A48) ORB 139B W/ALT NOISE

SYMBOL	ALPHA
0	.000
1	2.000
2	4.000
3	6.000
4	8.000
5	10.000

PARAMETRIC VALUES	
MACH	1.700 BETA
ELEVTR	.000 AILRON
SPDRGR	999.990

.000 DATASET
.000 L87C44
L87C46

DATA SOURCE
DBF
-14.250
13.750

DATA SET 1 08
L 87031

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REFERENCE INFORMATION

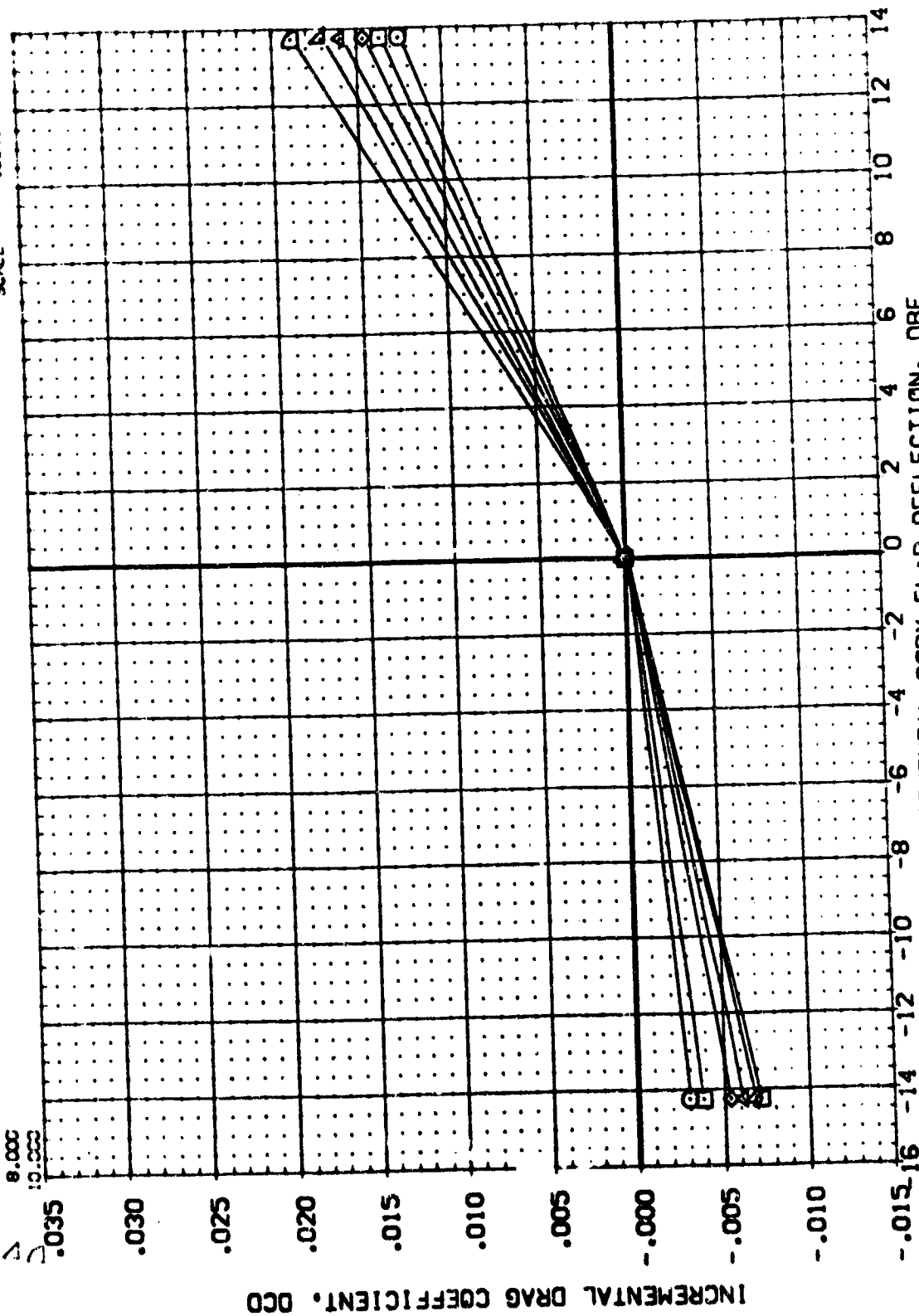


FIG. 35

INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

PAGE 12:3

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ALL 12 14 16 18 20

5000 0000 1000 2000 3000 4000 5000

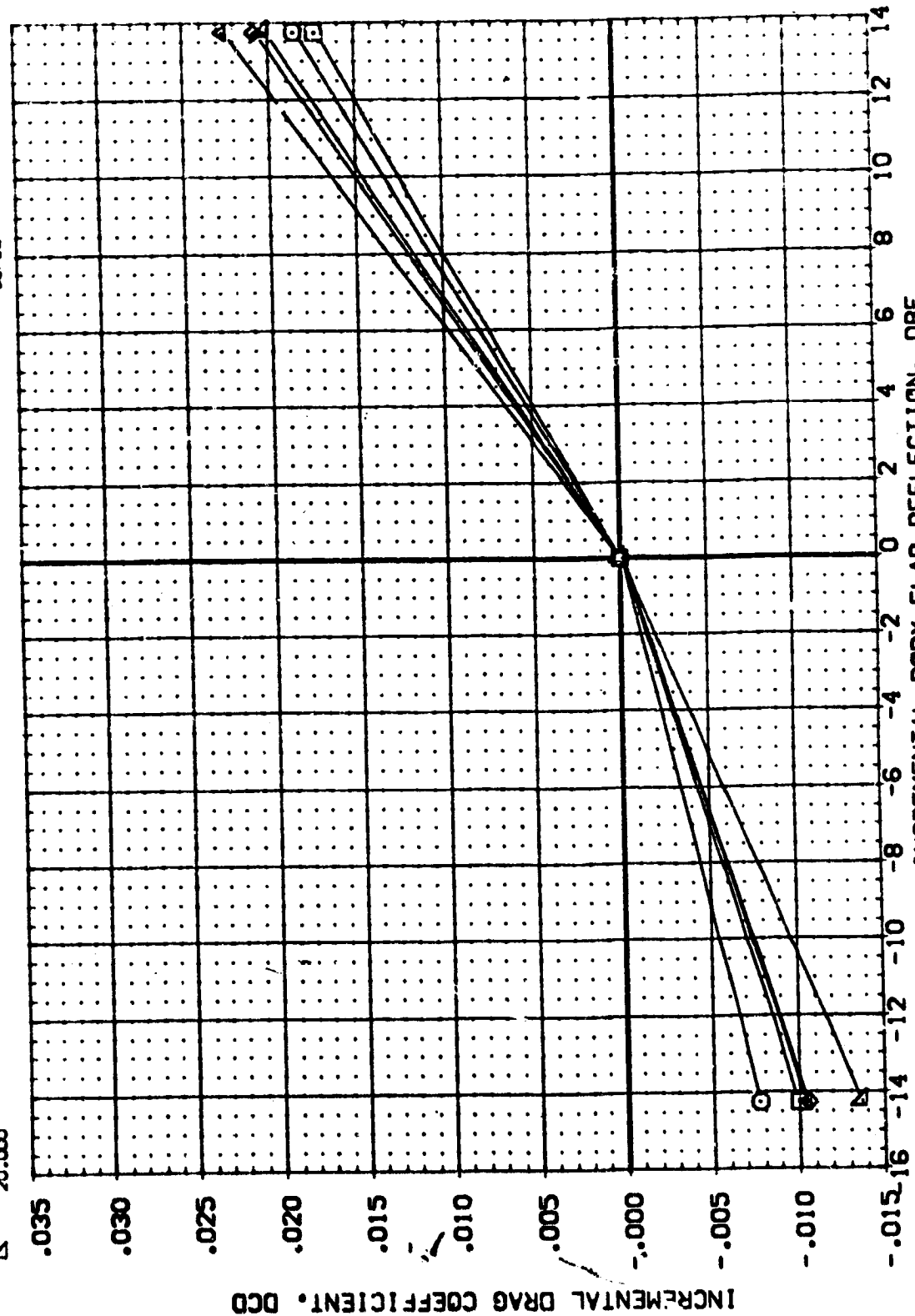


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

MSFC 574(CA48) CRB :39B W/ALT NOSE

REFERENCE INFORMATION

DATA SOURCE
DBF
-14.250
13.750

PARAMETRIC VALUES	
1.960	BETA
.000	AILRON
999.990	

**MACH
ELEVTR
SPDRX**

ALPHA
1.000
2.000
4.000
6.000
8.000
10.000

5100440

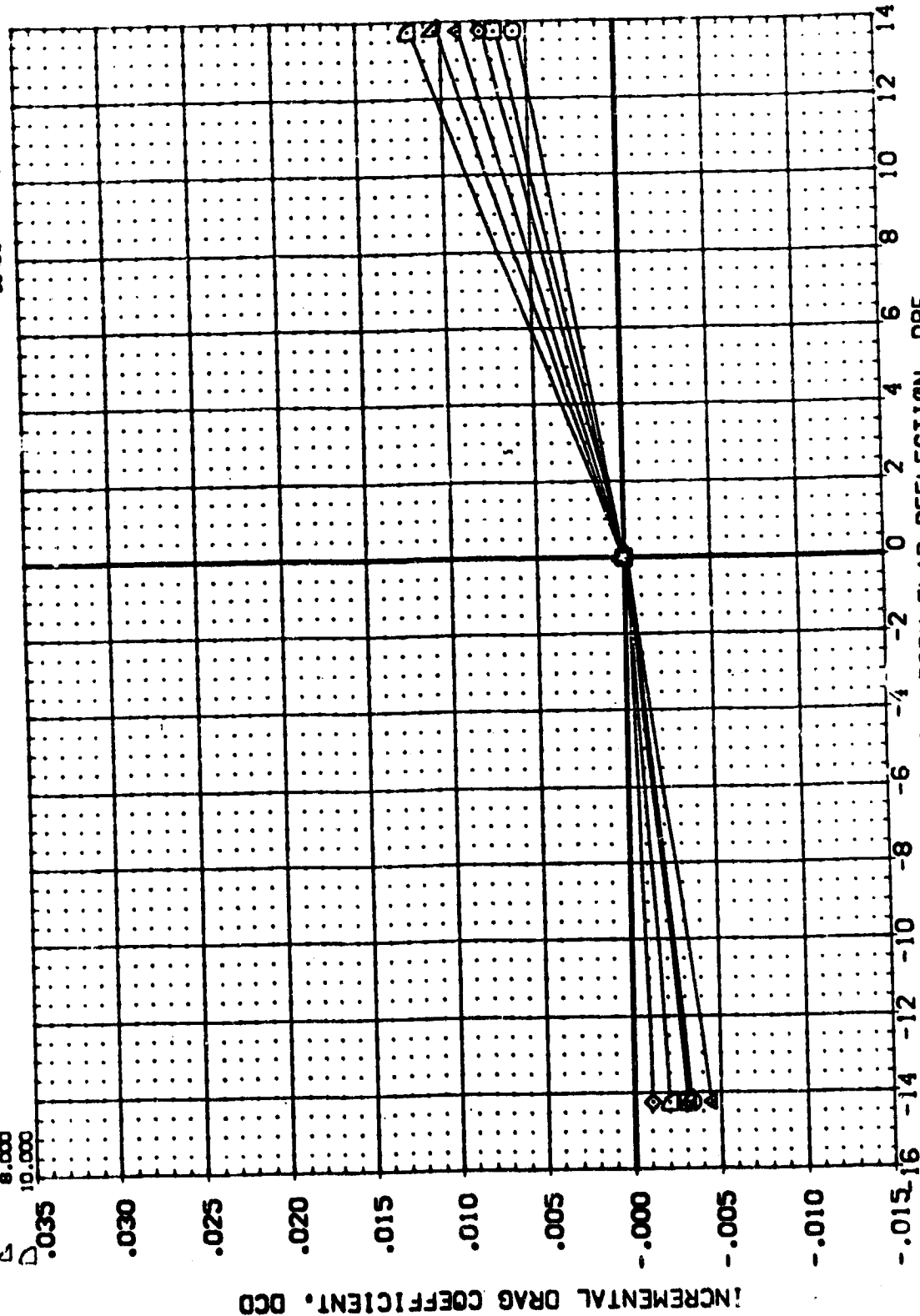


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

WSFC 574 (0A48) GRB 1398 W/ALT NCSE

[illegible]

DATA SOURCE	DATASET	DBF	SREF
DBF	L07031	.000	REF
14.250			REF
13.750			X1400
			Y1400
			Z1400
			SCAL

METRIC VALUES		.000 DATASET	
960	BETA	.000	L87044
000	ALTRON	.000	L87046
990			

ALPHA	MACH	ELEVTR	SPOBNK	PARR
12.000	1.0	0	999	1.0
14.000				
16.000				
18.000				

5100

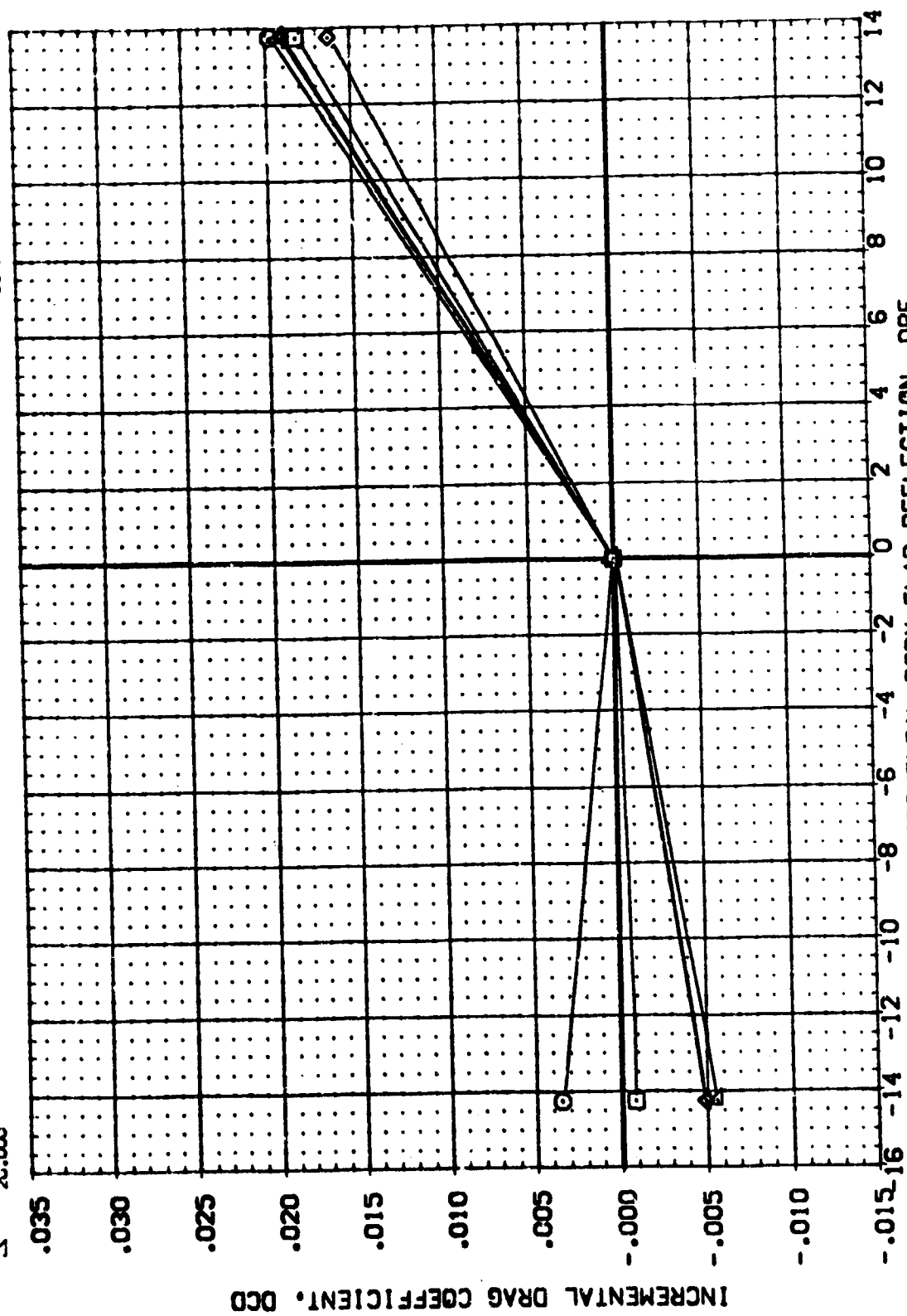


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

MSFC 574(CA48) ORB 139B W/ALT N3SE

REFERENCE INFORMATION:
2690.000C
474.800C
926.700C
838.700C
000C
000C
004C

SCALE
ZMPD
YMPD
XMPD
BQCF
JREF
SQEF

88

DATE: 10/10/1963

32605

DATA	DEF
-14.2	
13.7	

00 00
DATE: 10/10/77
L 10/10/77
L 10/10/77

88

**BETA
AIRLON**

PARAMETER
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.000
999.990

ACH
LEVR
POBOM

000000

ALL 2460
100 01044

was

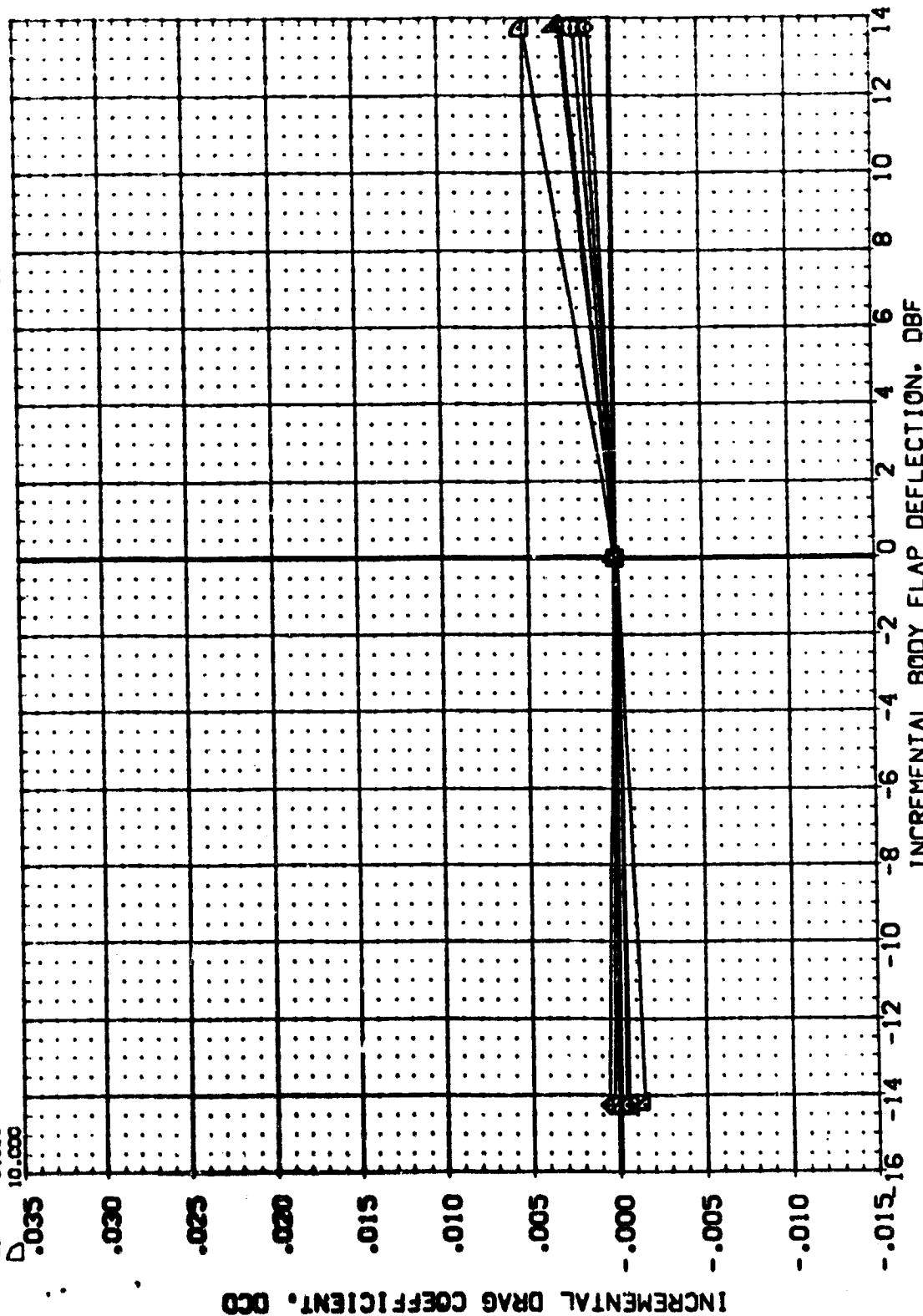


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

(L87044)

MSFC 574(0A48) ORB 139B W/ALT NOSE

SYMBOL		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA		MACH	BETA	DATASET	DBF	SREF	SC.F.
12.000		2.990	.000	L87044	.000	2690.0000	474.8000
14.000		.000	ALLRON	L87046	-14.250	936.7000	838.7000
16.000		999.990			13.750	.0000	.0000
18.000						.0000	.0000
20.000						.0000	.0000
						SCALE	

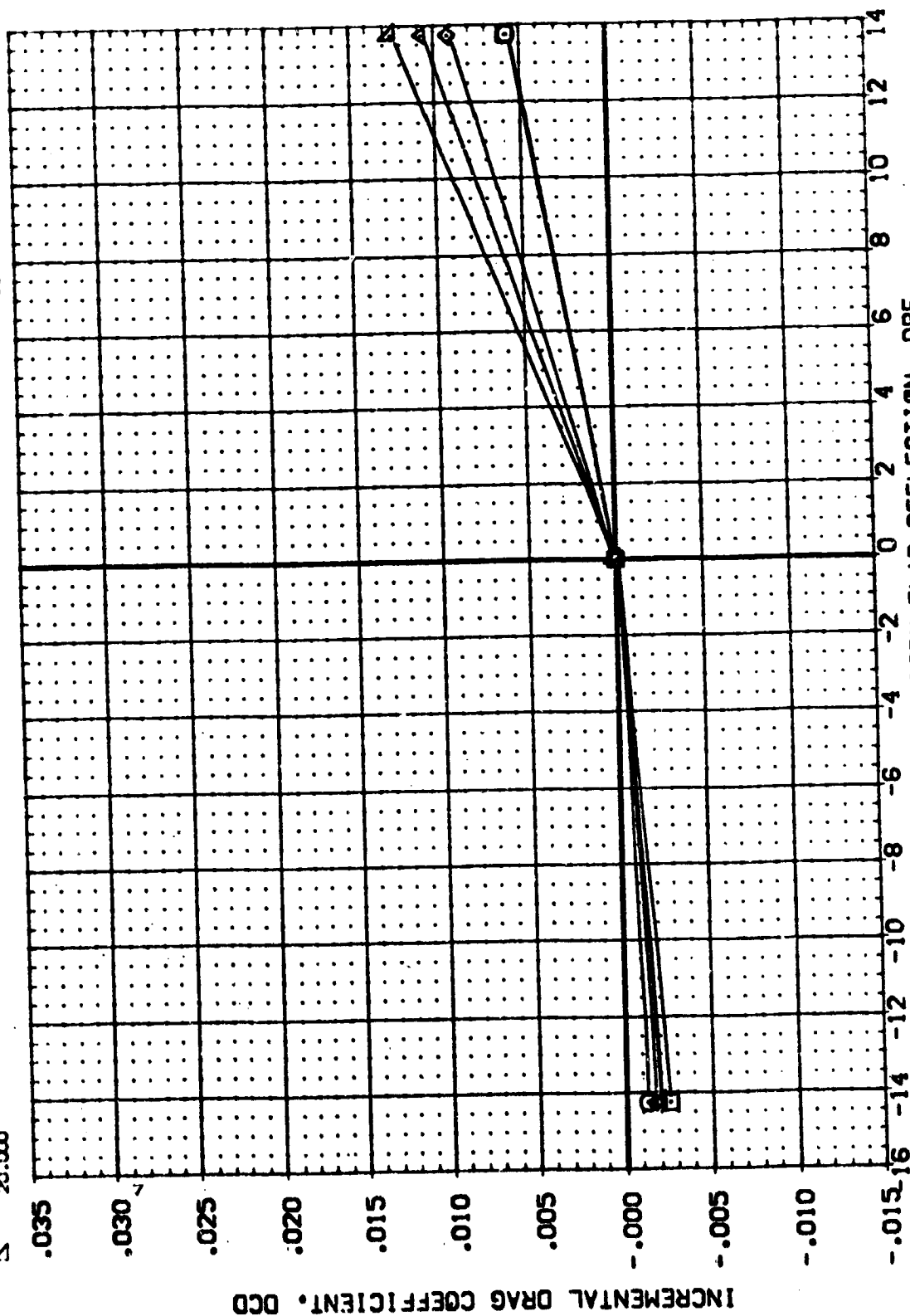


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

MSFC 574(0A48) CRB :39B W/ALT NOSE

(L87044)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
○	12.000	ELEVTR	4.960	BETA	.000	DBF	SREF	2690.0000
◇	14.000	SPDRK	.000	A:LRON	.000	DBF	LREF	474.8000
△	16.000		999.990		-14.250	DBF	BREF	936.7000
▽	18.000				13.750	DBF	XMRP	838.7000
	20.000					DBF	YMRP	.0000
						DBF	ZMRP	.0000
						DBF	SCALE	.0010
								SC.F.T.

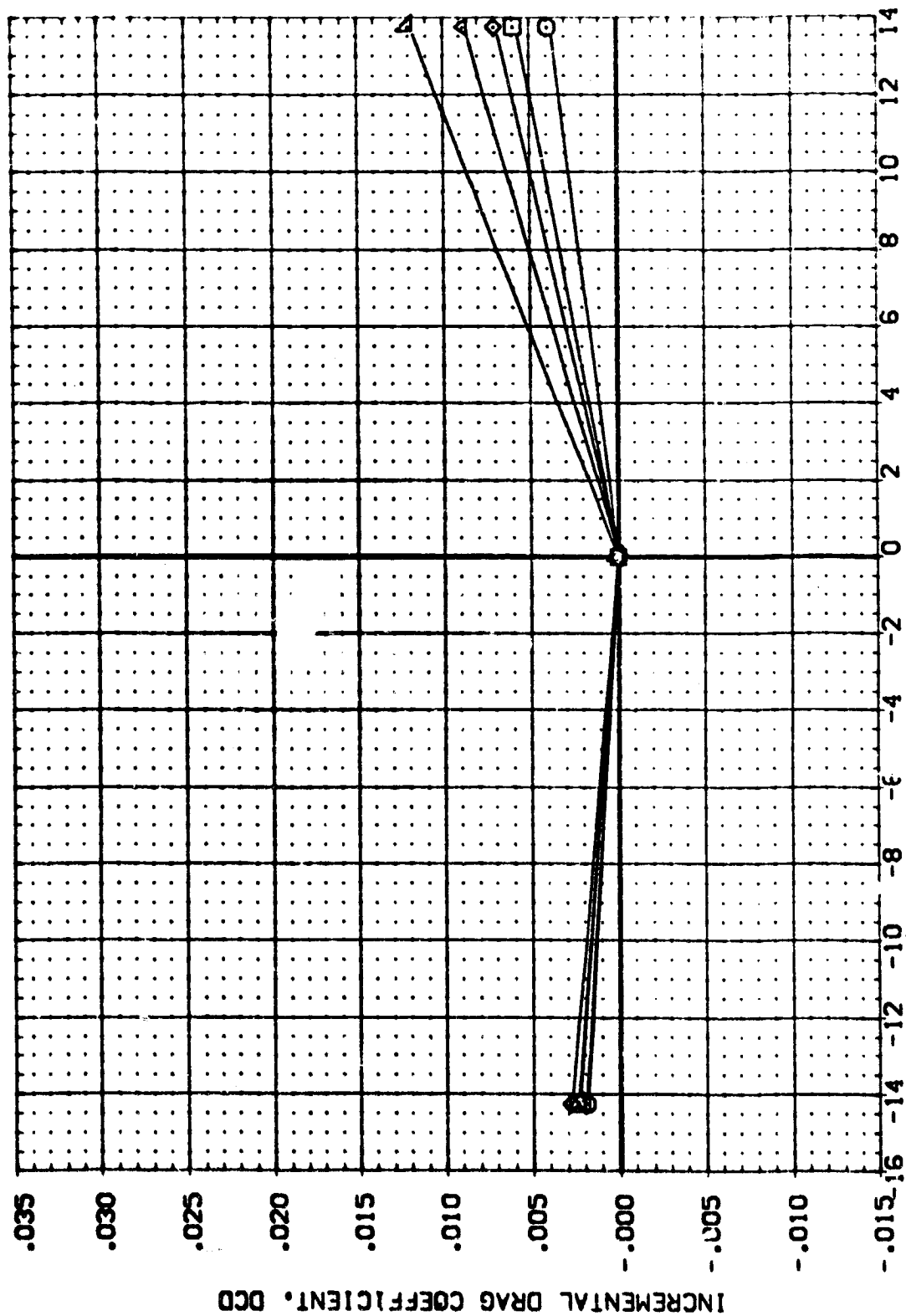


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 1398 WITH ALT. NOSE

(187045)

MSFC 574(0A48) ORB 139B W/ALT NOSE

SYMB.	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
	ALPHA	MACH	BETA	ALT/CON	DBF	DBF	SREF	LREF	BREF	XREF
○	32.000	2.950	.000	999.99C	.000	.000	2690.0000	474.8000	936.7000	838.7000
◇	34.000	ELEVTR			-14.250	.000	474.8000	936.7000	838.7000	.0000
△	36.000	SPDRM			13.750	.000	474.8000	936.7000	838.7000	.0000
▽	38.000					.000	474.8000	936.7000	838.7000	.0000
□	40.000					.000	474.8000	936.7000	838.7000	.0000
						SCALE	DBF			.0010

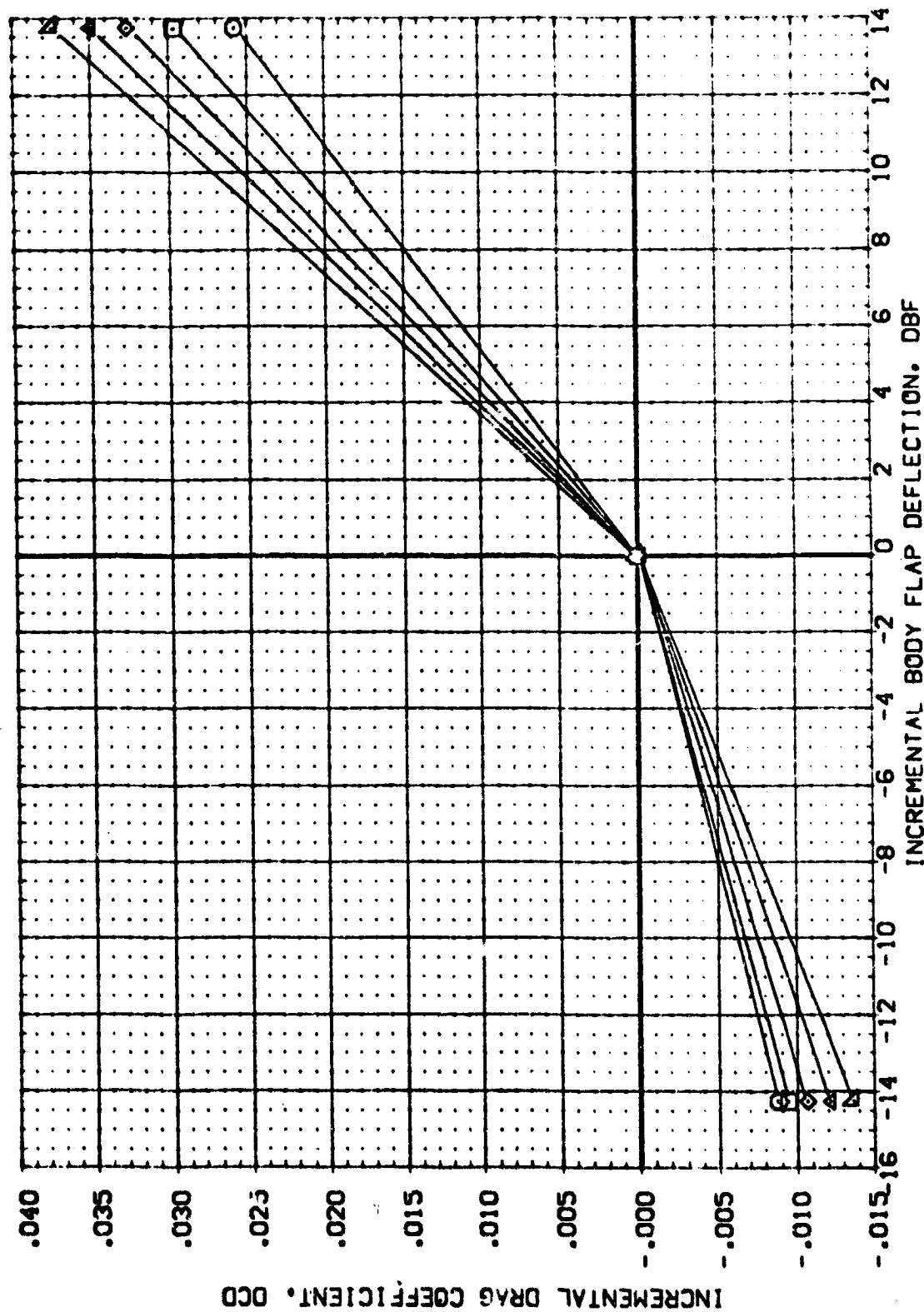


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

(L87045)

MSFC 574(0A48) ORB 1398 W/ALT NOSE

SYMBOL	ALPHA	MACH	ELEVTR	SPDRK	PARAMETRIC VALUES	DATA SOURCE	DATASET	DBF	REFERENCE INFORMATION
□	32.000	4.960	BETA			DBF	L87032	.000	SREF 2690.0000
□	34.000	.000	AILRON			DBF	L87045		LREF 474.8000
□	36.000	999.990				DBF	L87047		BREF 936.7000
□	38.000					DBF			XMRP 838.7000
□	40.000					DBF			YMRP .0000
						DBF			ZMRP .0000
						DBF			SCALE .0010

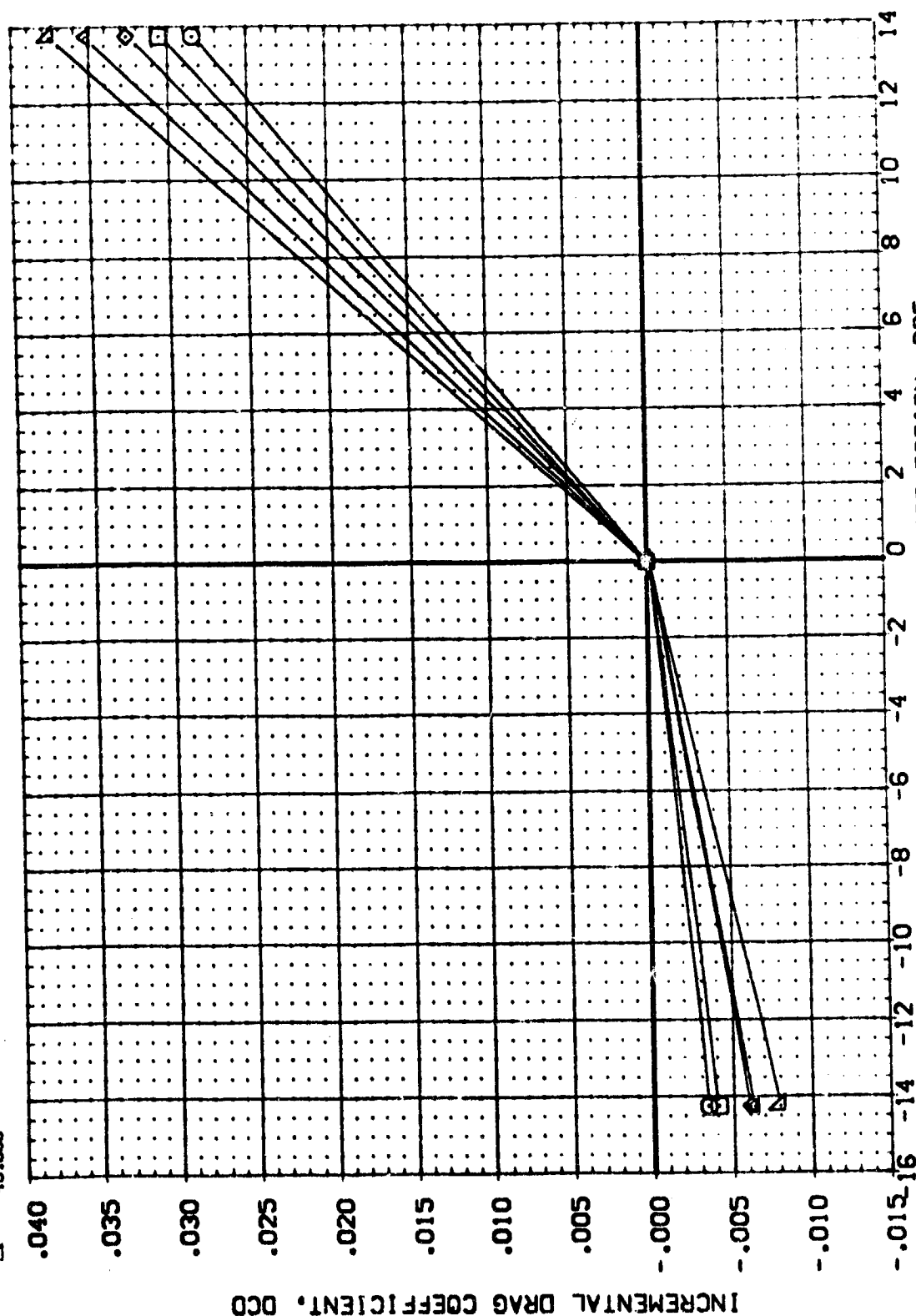


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 1398 WITH ALT. NOSE

[L870444]

MSFC 574(0A48) CR3 139B W/ALT NCSE

REFERENCE INFORMATION
 SREF 2690.0000
 LREF 474.8000
 XREF 936.7000
 YREF 838.7000
 ZREF .0000
 SCALE .0010

DATA SOURCE
 DBF -14.750
 L87031 13.750

PARAMETRIC VALUES
 BETA .600
 ALLCON .000
 SPOBRK 999.99C

ALPHA
 .000
 2.000
 4.000
 6.000
 8.000
 10.000

SYMBOL
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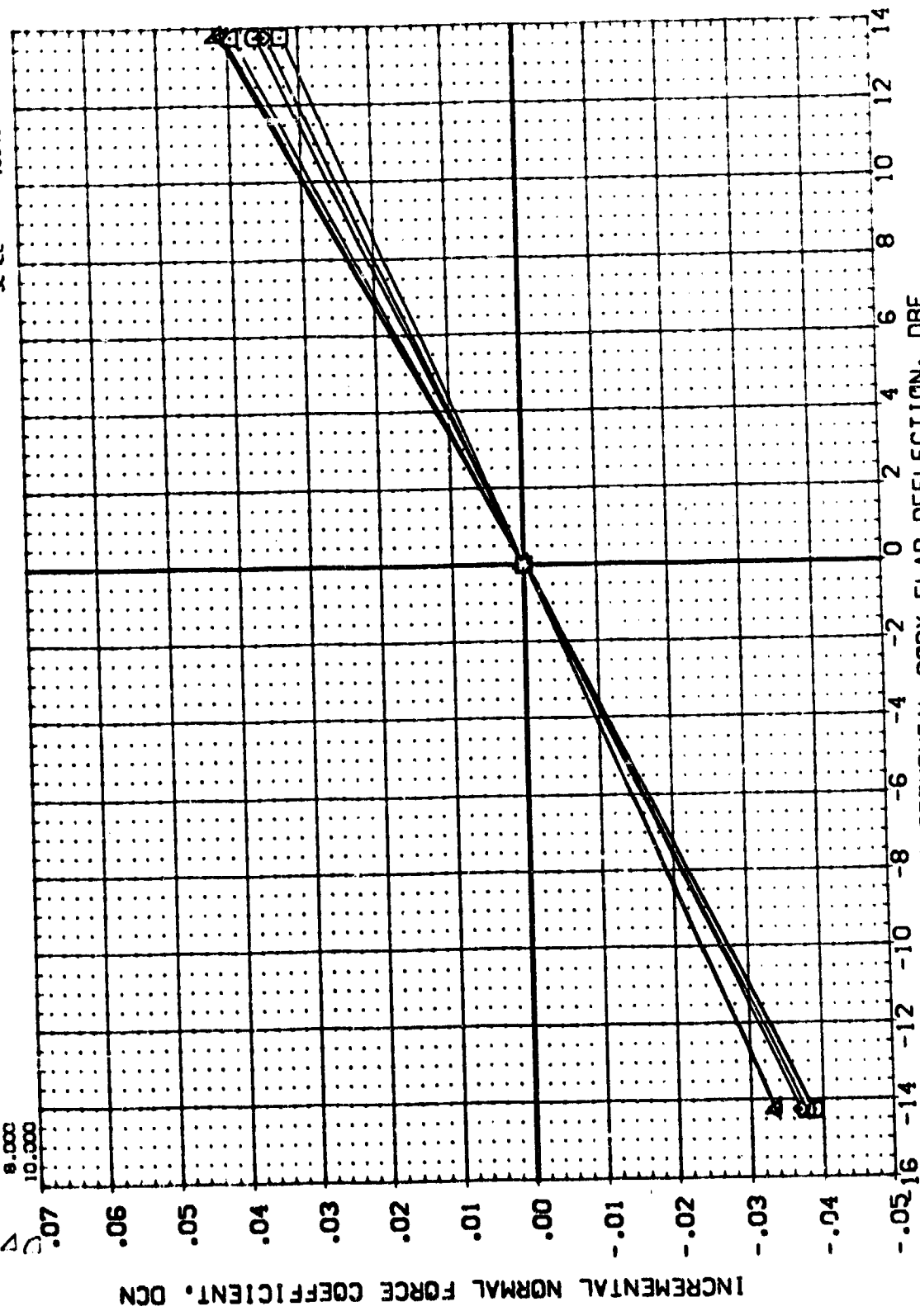


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NCSE
 PAGE : 225

MSFC 574(0A48) ORB 139B W/ALY NCSE

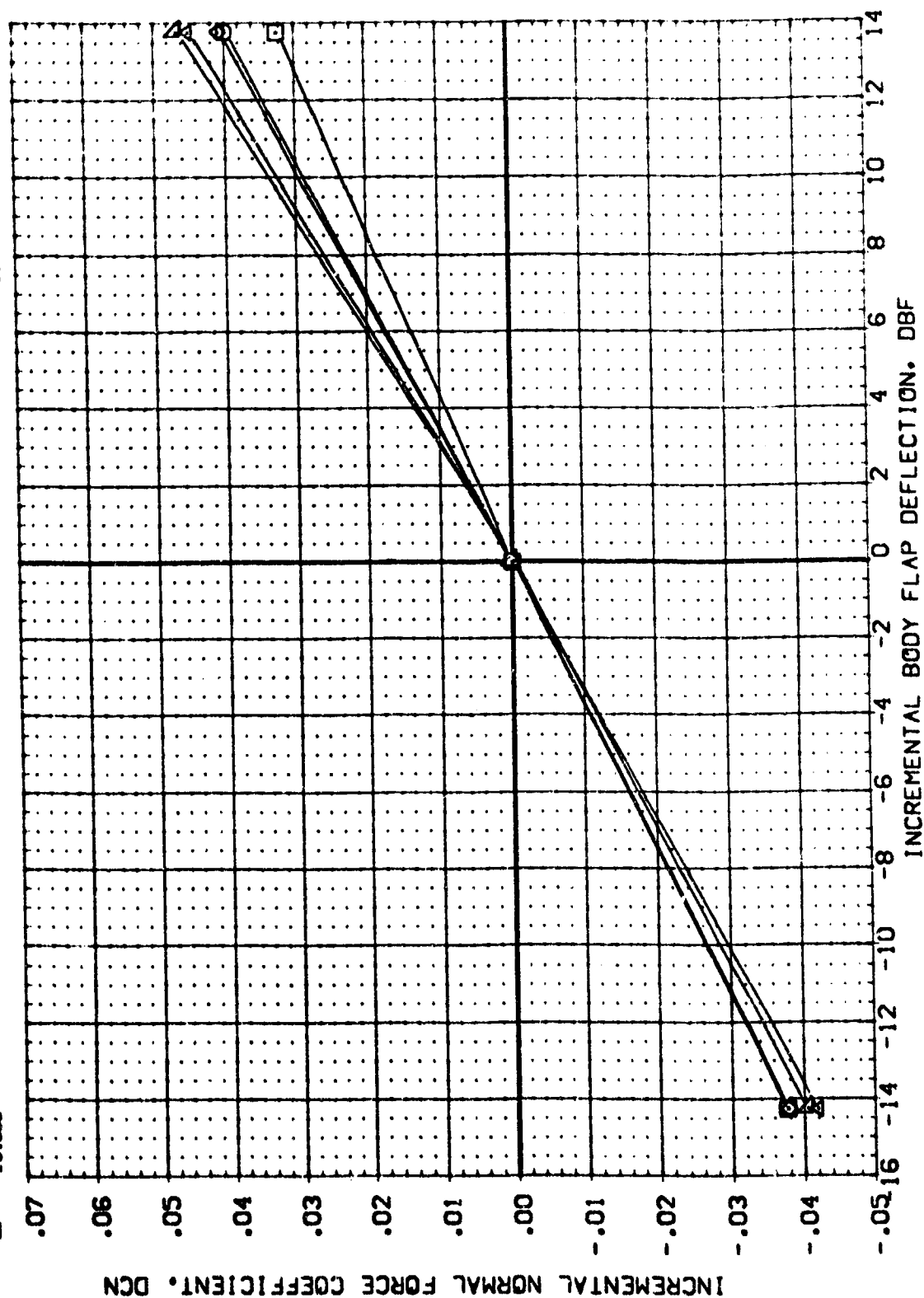
[illegible]

FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

(L87044)

MSFC 574(0A48) ORB 1398 W/ALT NOSE

REFERENCE INFORMATION
SQ.FT.
SREF 2690.0000
LREF 474.8000
BREF 936.7000
XMRP 838.7000
YMRP .0000
ZMRP .0000
SCALE .0040

DATA SOURCE
DBF
DATASET DBF
L87031 .000

PARAMETRIC VALUES
ALPHA .000
MACH .900
ELEVTR .000
SPDRK 999.990
BETA .000
AILRON .000

SYMBOL
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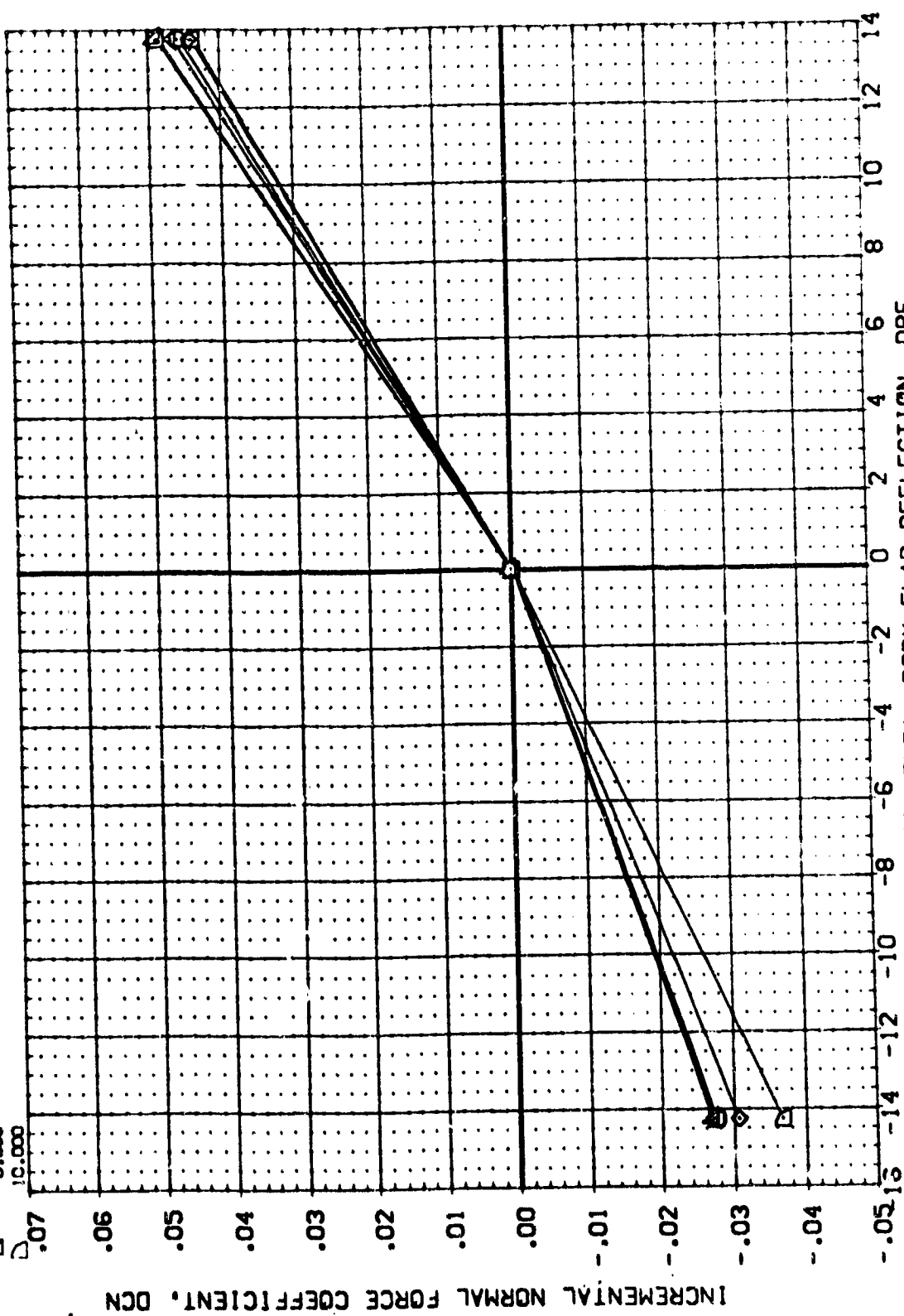
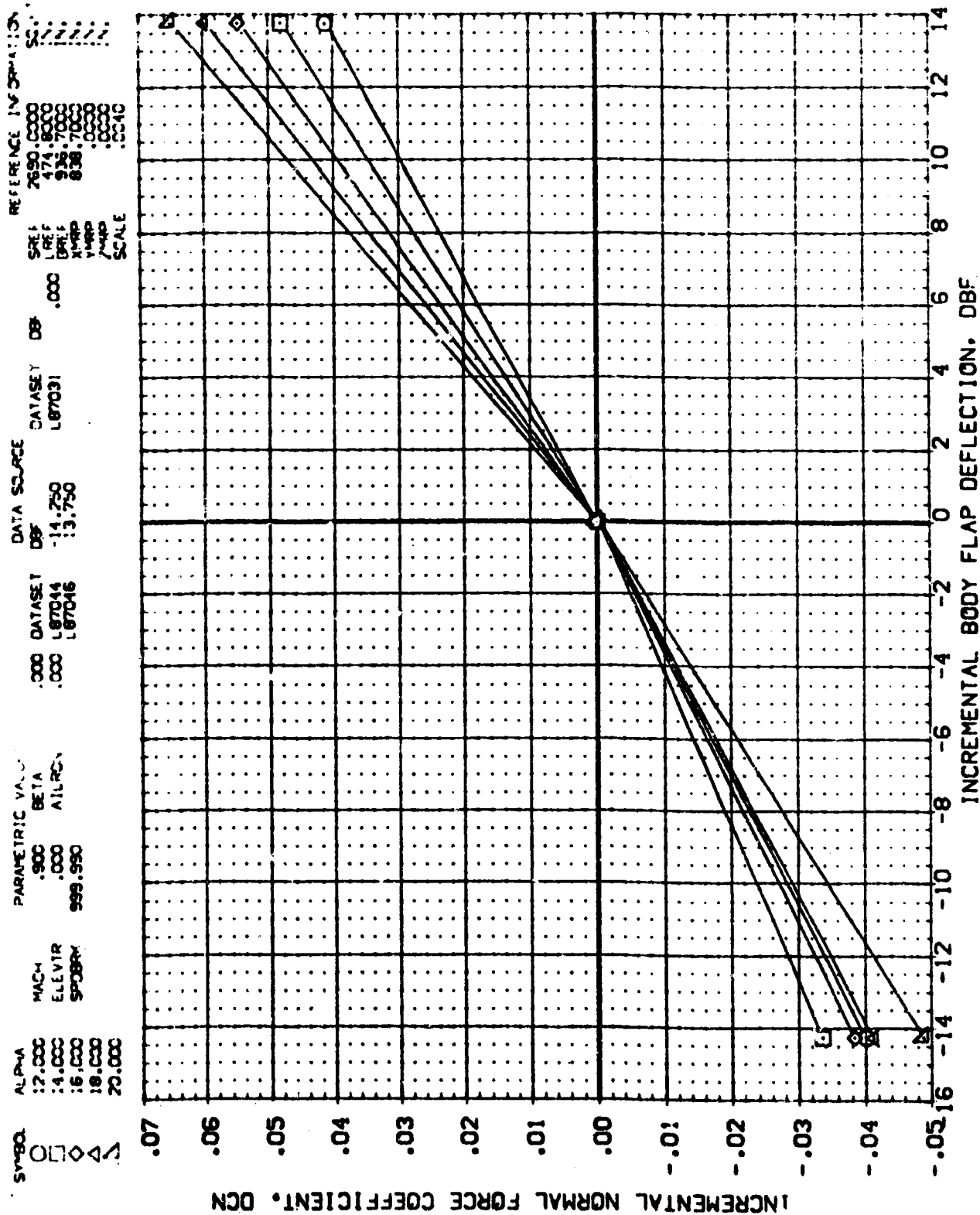


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 1398 WITH ALT. NOSE

MSFC 574(CA48) CRB : 1393 W/ALT NOSE

(: 87044)



(187044)

MSFC 574(0A48) ORB 139B W/AL NOSE

REFERENCE INFORMATION
 SREF 7590.0000
 LREF 474.8000
 SREF 936.7000
 XREF 838.7000
 YREF .0000
 ZREF .0000
 SCALE .0040

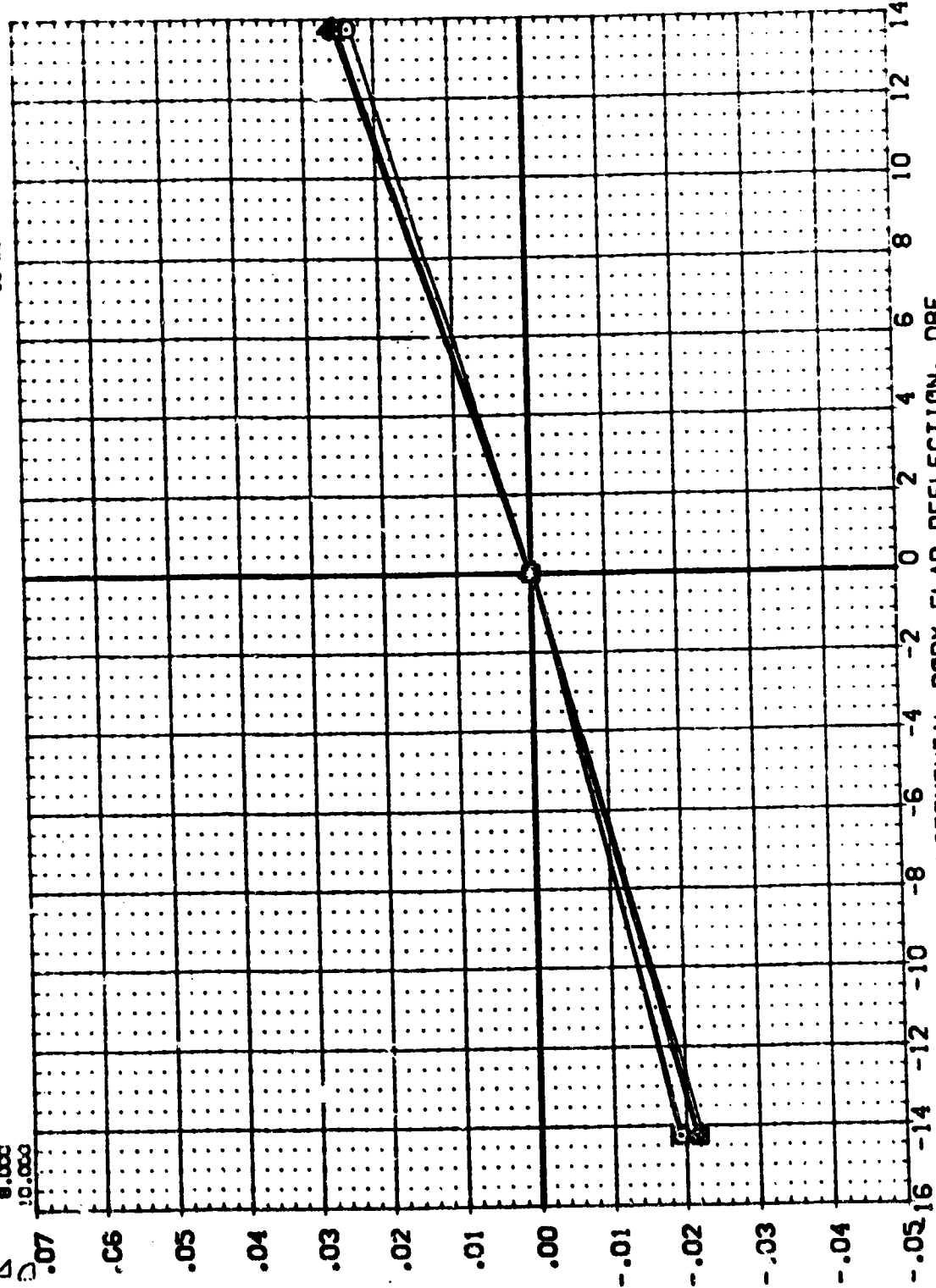
DATA SOURCE
 DBF .000
 DATASET .87031
 DBF -14.750
 DBF 13.750

PARAMETRIC VALUES
 .000 DATASET
 .000 .87044
 .000 .87046

ALPHA
 .000
 2.000
 4.000
 6.000
 8.000
 10.000

MACH
 ELEVIR
 SPDRY 999.990

BETA
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INCREMENTAL NORMAL FORCE COEFFICIENT, DCN

INCREMENTAL BODY FLAP DEFLECTION, DBF

FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

(L87044)

MSFC 574(CA48) ORB 139B W/ALT NCSE

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
1	2.000	1.200	BETA	DBF	SREF 2690.0000
2	4.000	.000	AILRON	DBF	LREF 474.8000
3	6.000	999.990		DBF	BREF 936.7000
4	8.000			DBF	XREF 838.7000
5	10.000			DBF	YREF .0000
6	12.000			DBF	ZREF .0000
7	14.000			DBF	SCALE .0040
8	16.000			DBF	
9	18.000			DBF	
10	20.000			DBF	

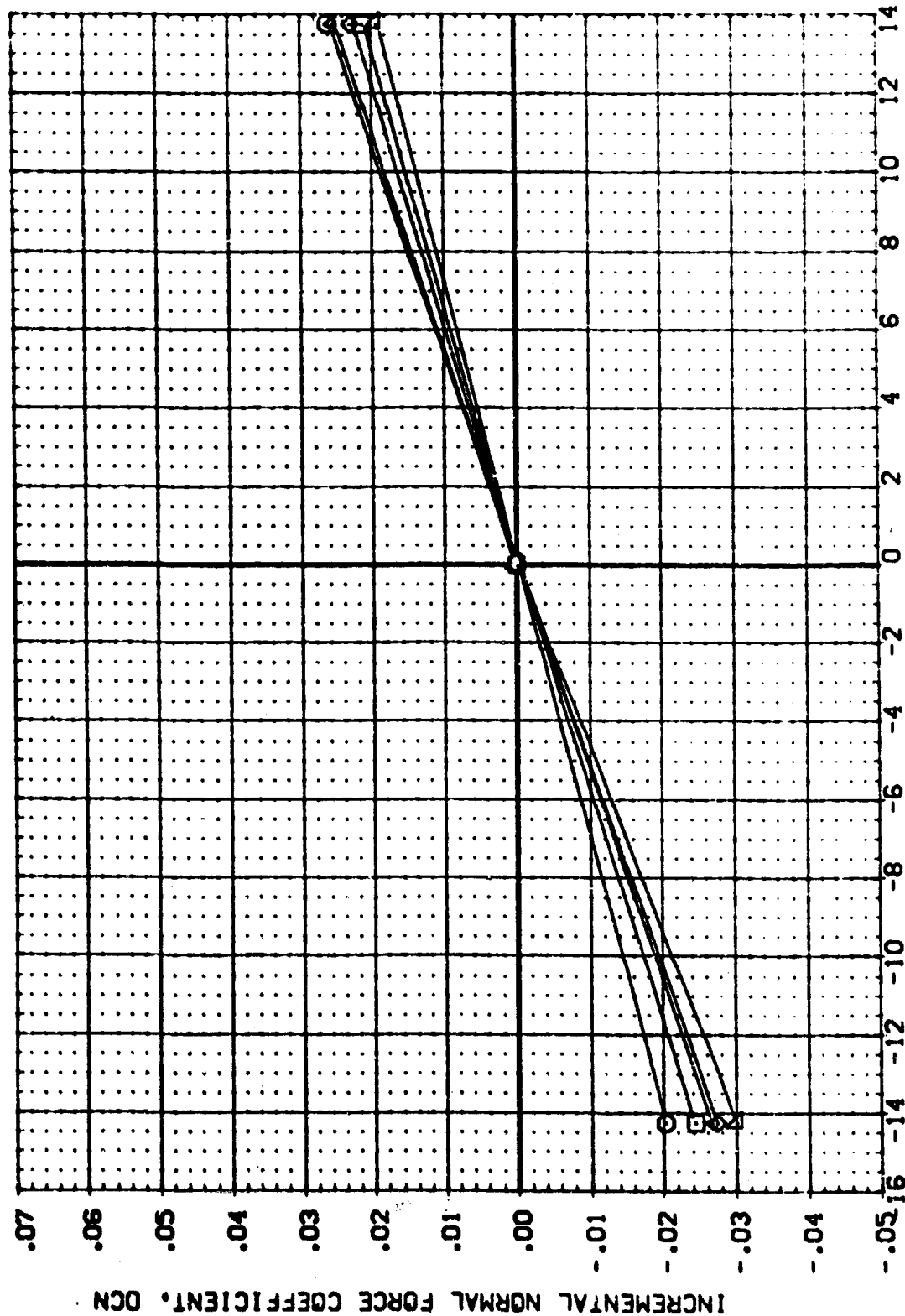


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. N05L

1

SYNOPSIS



PAGE : 23:

(L87C44)

MSFC 574(0A48) ORB 139B W/ALT NOSE

SYMBOL
□
◇
△
▽

ALPHA
12.000
14.000
16.000
18.000
20.000

MACH
ELEVTR
SPDRK

PARAMETRIC VALUES
1.960 BETA
.000 AILRON
999.990

.000 DATASET
.000 L87044
.000 L87046

DATA SOURCE
DBF
-14.250
13.750

DATASET DBF
L87C31

SRF
LRI
BRF
XMRP
YMRP
ZMRP
SCALE

REFERENCE INFORMATION
269C.0000
47A.8000
936.7000
836.7000
.0000
.0000
.0000
SCALE

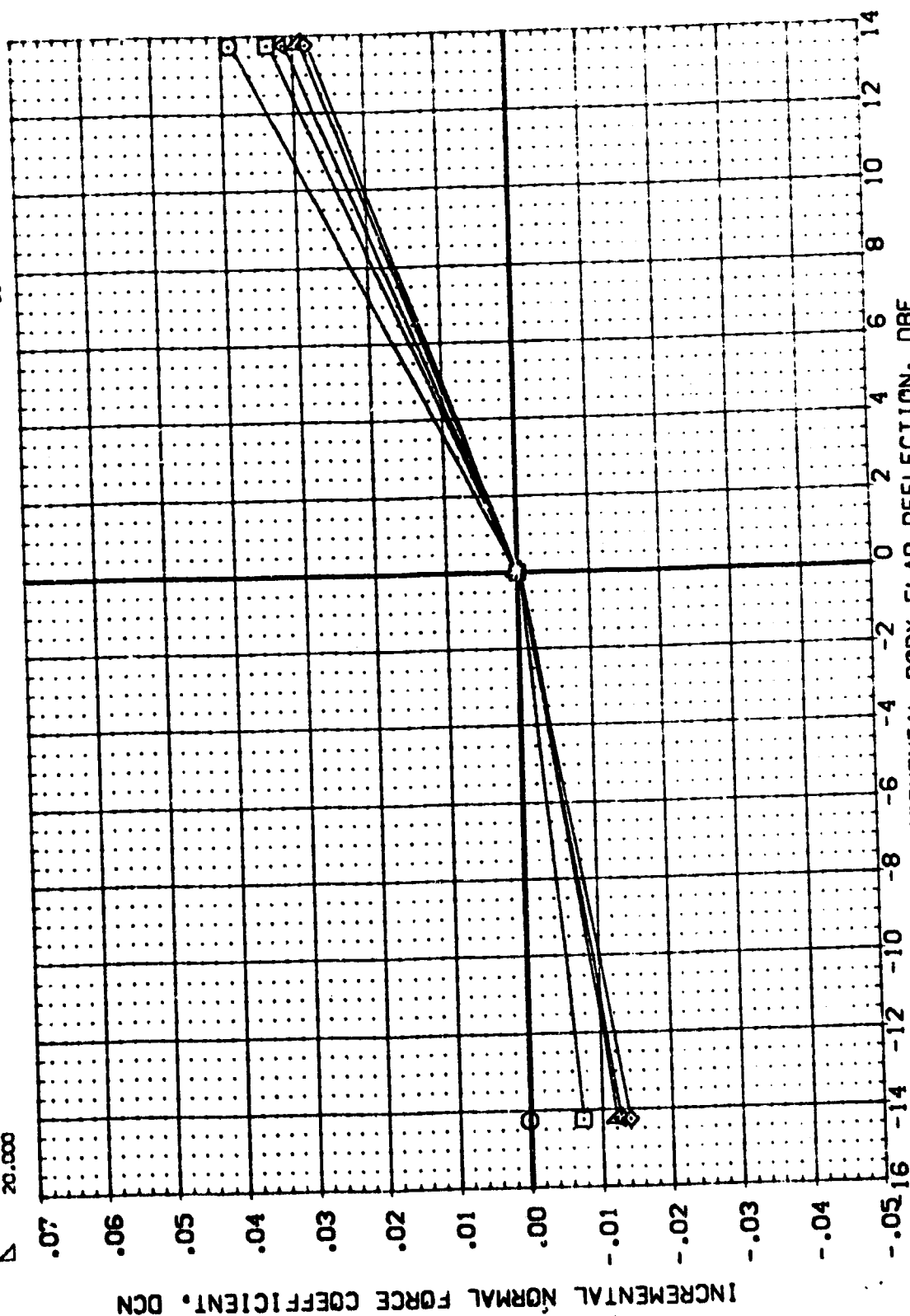


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE
PAGE 1232

MSFC 574(CA48) CRB 1393 W/AL: NOSE

REFERENCE INFORMATION

DATA SOURCE	DATASET	DBF	SREF
DBF	LS8703:	.000	SREF
14.750			YPROP
13.750			ZPROP
			SCALE

1,000 DATASET
1,000 L87041
1,000 L87046

PARAMETRIC VALUES

2.99C	BETA
.000	AIRLN
999.990	

3/40

1.000
2.000
4.000
6.000

08-00000

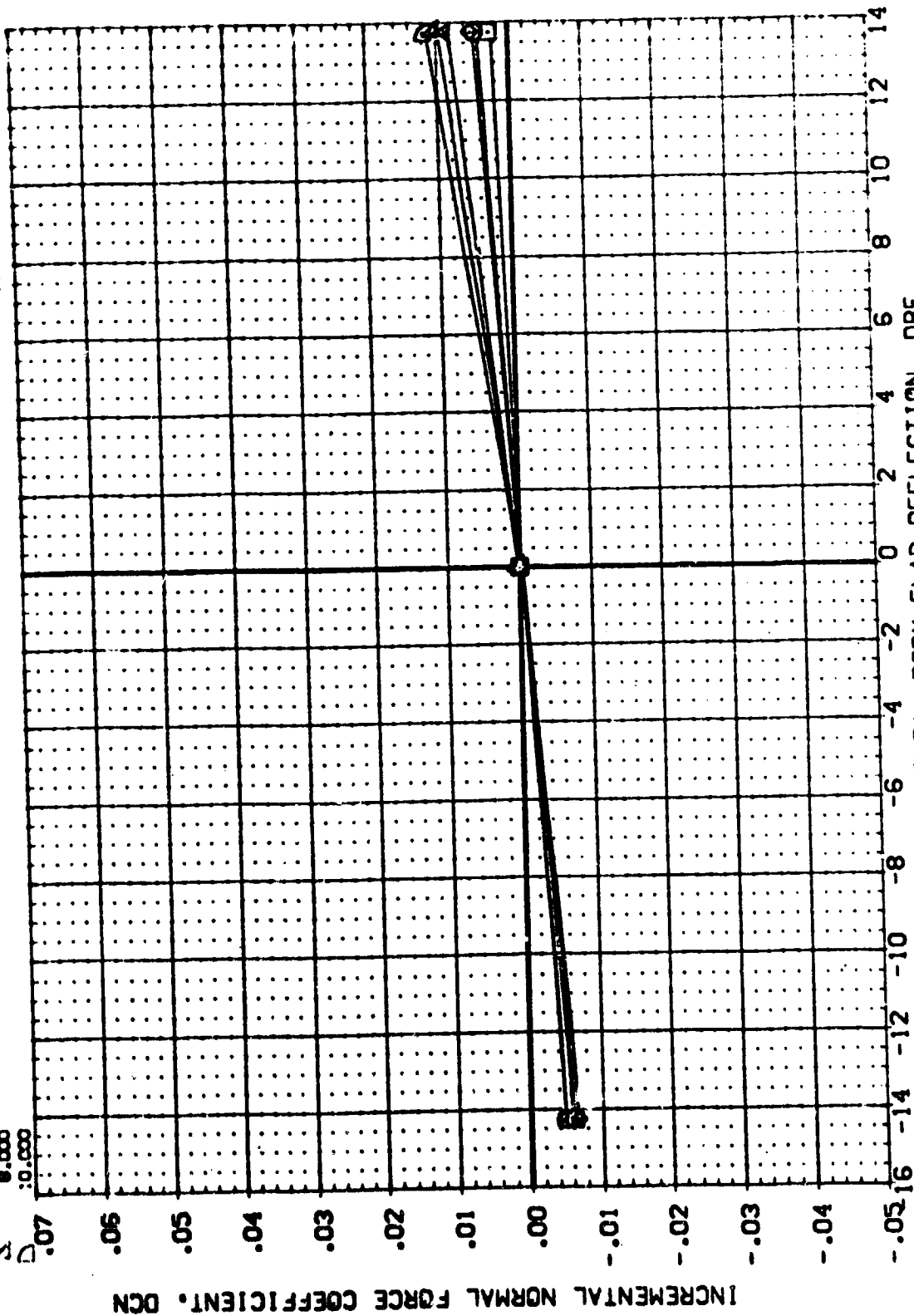


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

v\$FC 574(0A48) OR3 : 393 W/AL : NOSE

[L87044]

SYNOPSIS	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
1	12.000	ELEVTR	2.990 BE'A	DATASET .000	SREF 2690.0000
2	14.000	ELEVTR	.000 AIRCN	DATASET 187031	LREF 474.8000
3	16.000	SPOBRK	999.990	DATASET 187046	SREF 935.7000
4	18.000				YREF 838.7000
5	20.000				ZREF .0000
					SCALE .0010

MSEFC 574 (QA48) QRB 139B W/ALT NCSE

REFERENCE INFORMATION:
2690.0000
474.8000
936.7000
838.7000
0000
0000
0000
0000

REF
SREF
LREF
BREF
XREF
YREF
ZREF
SCALE

DATA SOURCE	DATASET	DBF
DBF	L87031	
14-250		

.000	DATASET
.000	L87044
	L87046

PARAMETRIC VALUES

**MACH
ELEVTR
SPOBRX**

10.000
8.000
6.000
4.000
2.000
.000

07-04-00

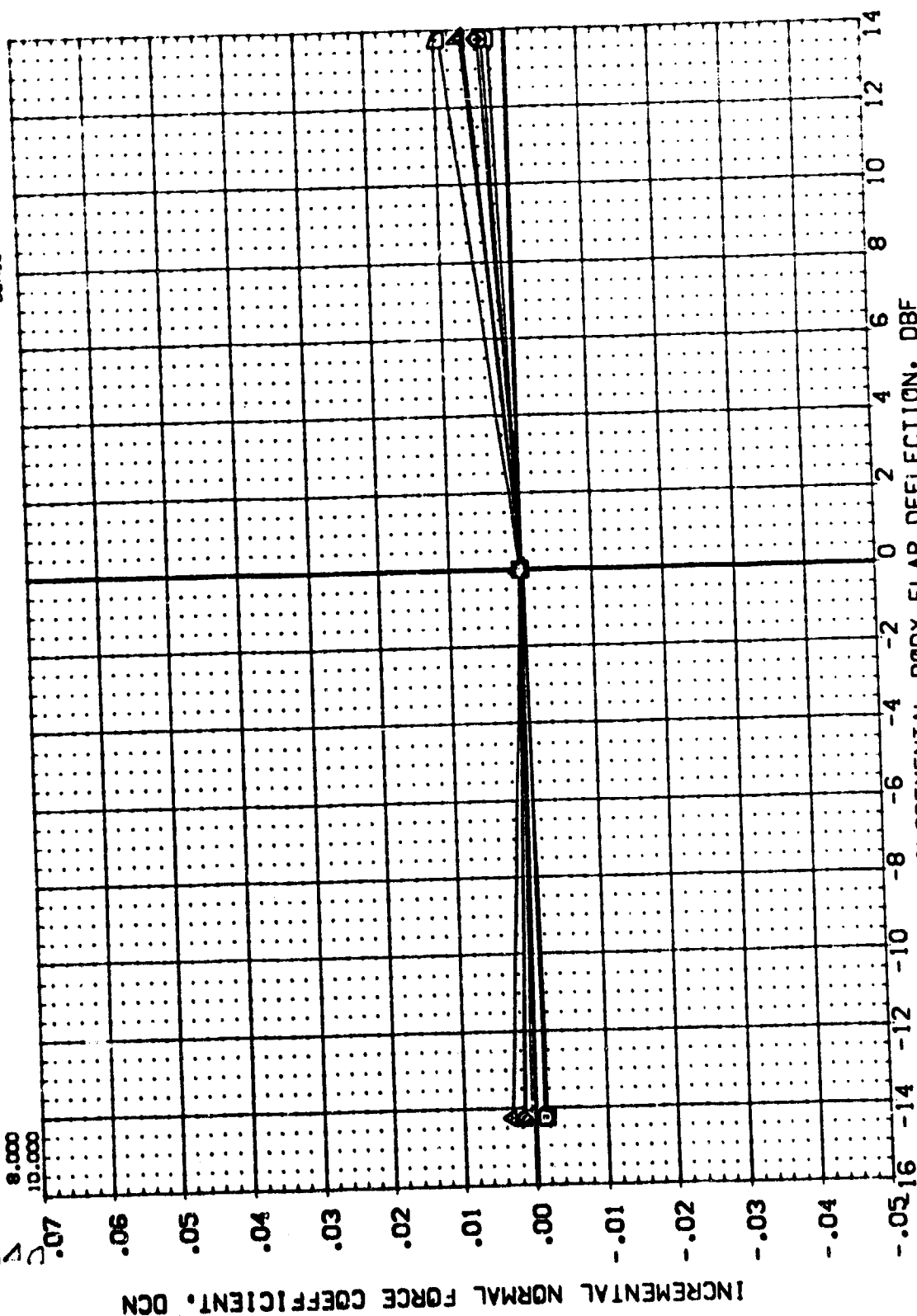


FIG. 35

MSFC 574(CA48) CRB :39B W/ALT NOSE

CL870443

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
0	:2.000	4.950	DBF	SPEC .000
1	:4.000	BETA	DBF	BETC 474.8000
2	:6.000	ELEVTR	DBF	BETC 936.7000
3	:8.000	AIRLON	DBF	BETC 936.7000
4	:10.000	999.990	DBF	BETC 936.7000
5	:12.000		DBF	BETC 936.7000
6	:14.000		DBF	BETC 936.7000
7	:16.000		DBF	BETC 936.7000
8	:18.000		DBF	BETC 936.7000
9	:20.000		DBF	BETC 936.7000

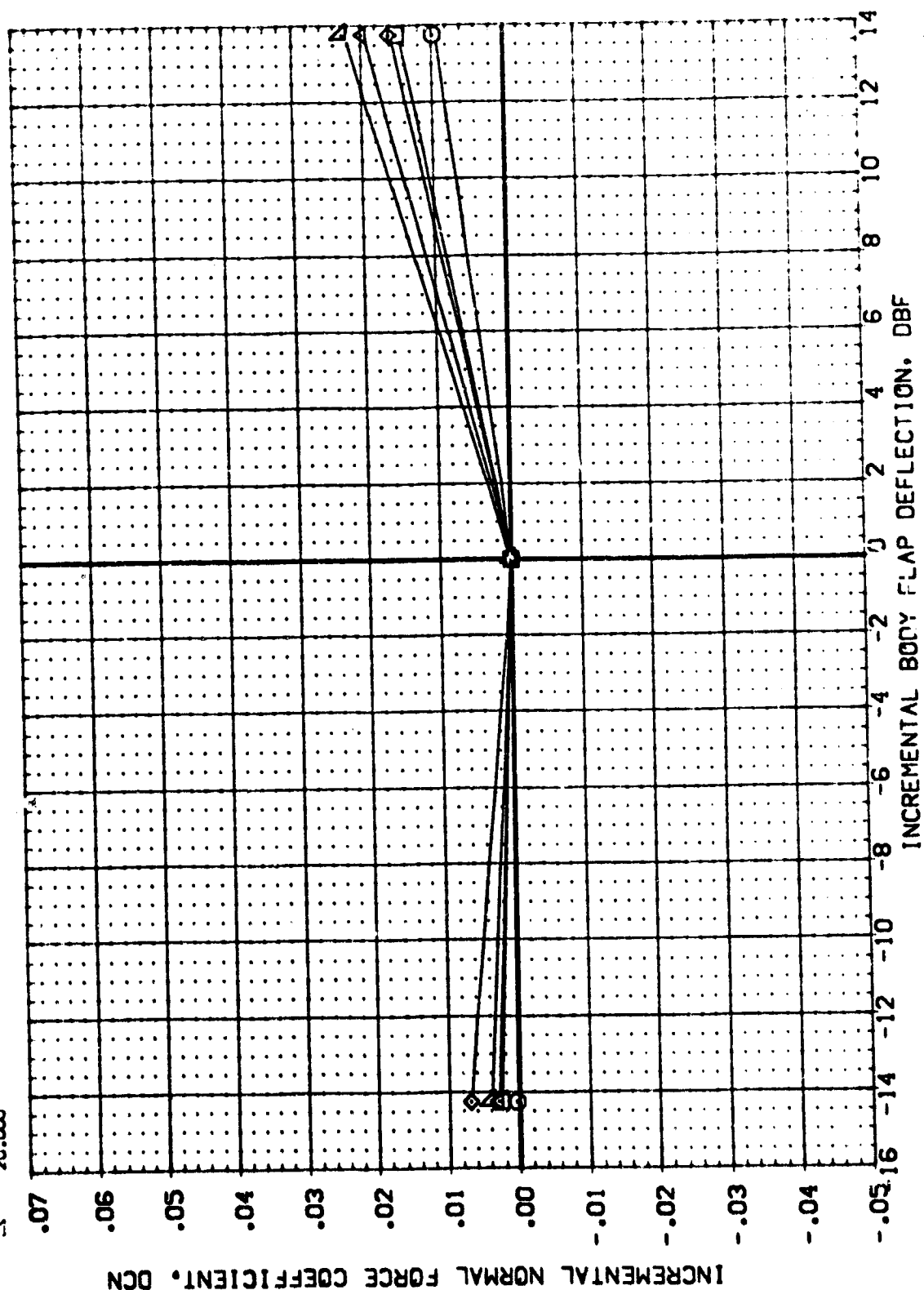


FIG. 35. INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

(L87045)

MSFC 574(0A48) CRB 1398 W/ALT NOSE

PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION	
ALPHA	MACH	BETA	AILRON	DATASET	DBF	SREF	SC
20.000	2.990	.000	999.990	.000	.000	2690.0000	SC
22.000	ELEVTR	.000		L87045		474.8000	
24.000	SPDRK	999.990		L87047		936.7000	
26.000						838.7000	
28.000						.0000	
30.000						.0000	
						ZMRD	
						ZMRD	
						SCALE	

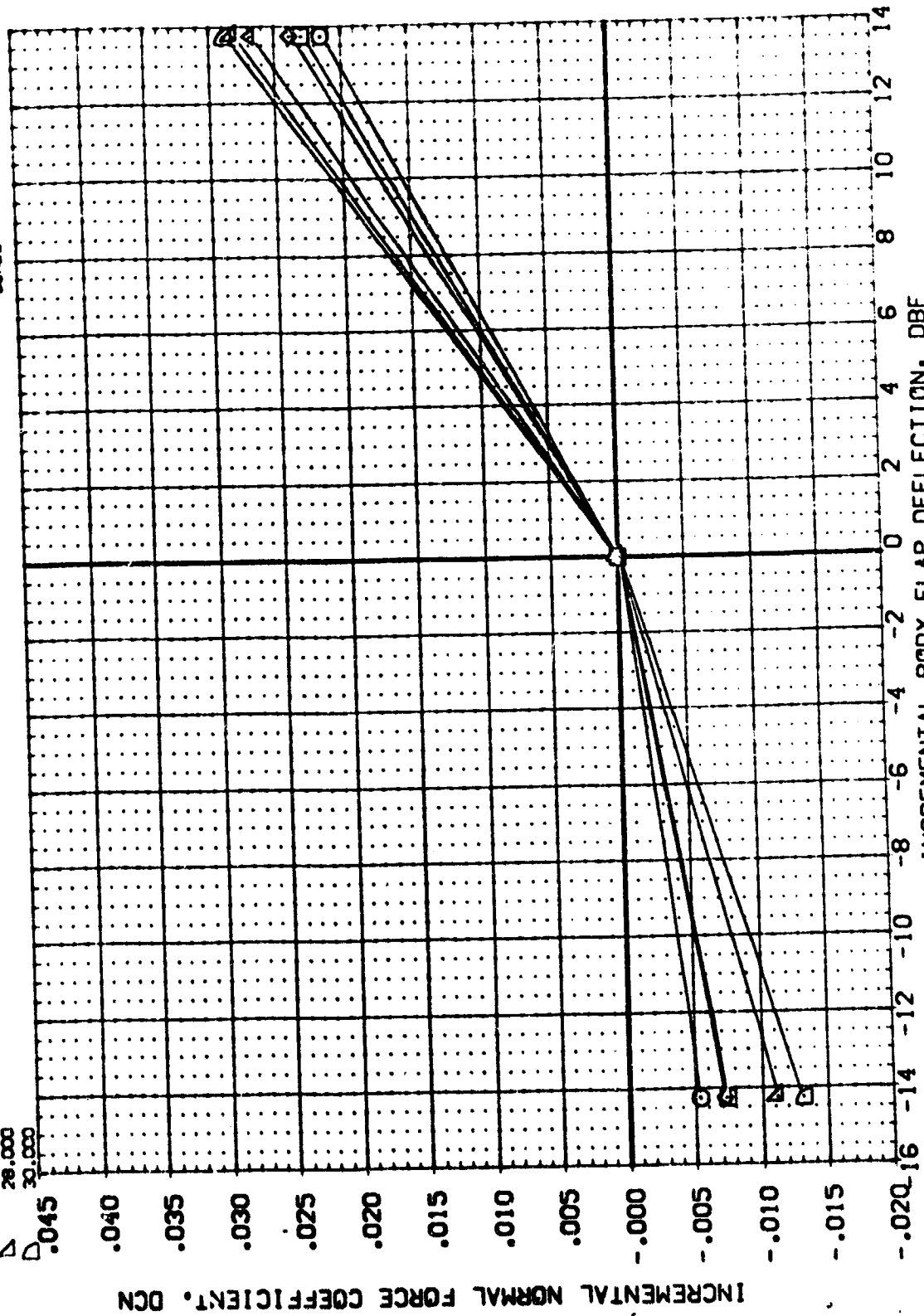


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 1398 WITH ALT. NOSE

MSFC 574(0A48) GRB 1398 W/ALT NOSE (L87045)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATA SET	DBF	DATE	DBF	REFERENCE INFORMATION
○	32.000		2.990 BETA	DBF	.000 L87045	-14.250	L87032	.000	SREF 269C.0000
□	34.000	ELEVTR	.000 AILRON		.000 L87047	13.750			LREF 474.8000
◇	36.000	SPDRK	999.990						BREF 936.7000
△	38.000								XRRP .0000
▽	40.000								YRRP .0000
									ZRRP .0000
									SCALE .0040

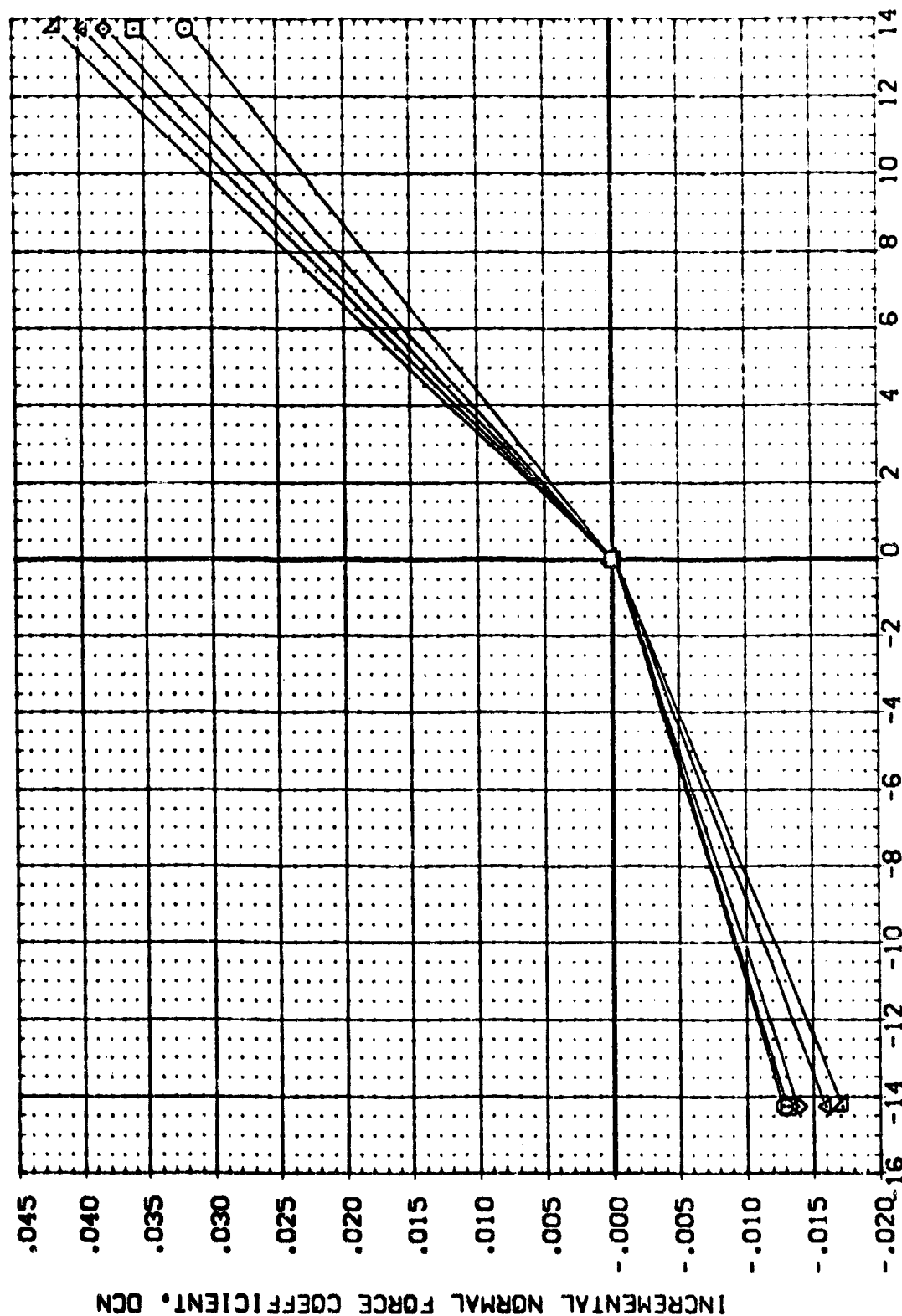


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 1398 WITH ALT. NOSE

YSEC 574(CA48) GR3 : 393 W/AL : NOSE

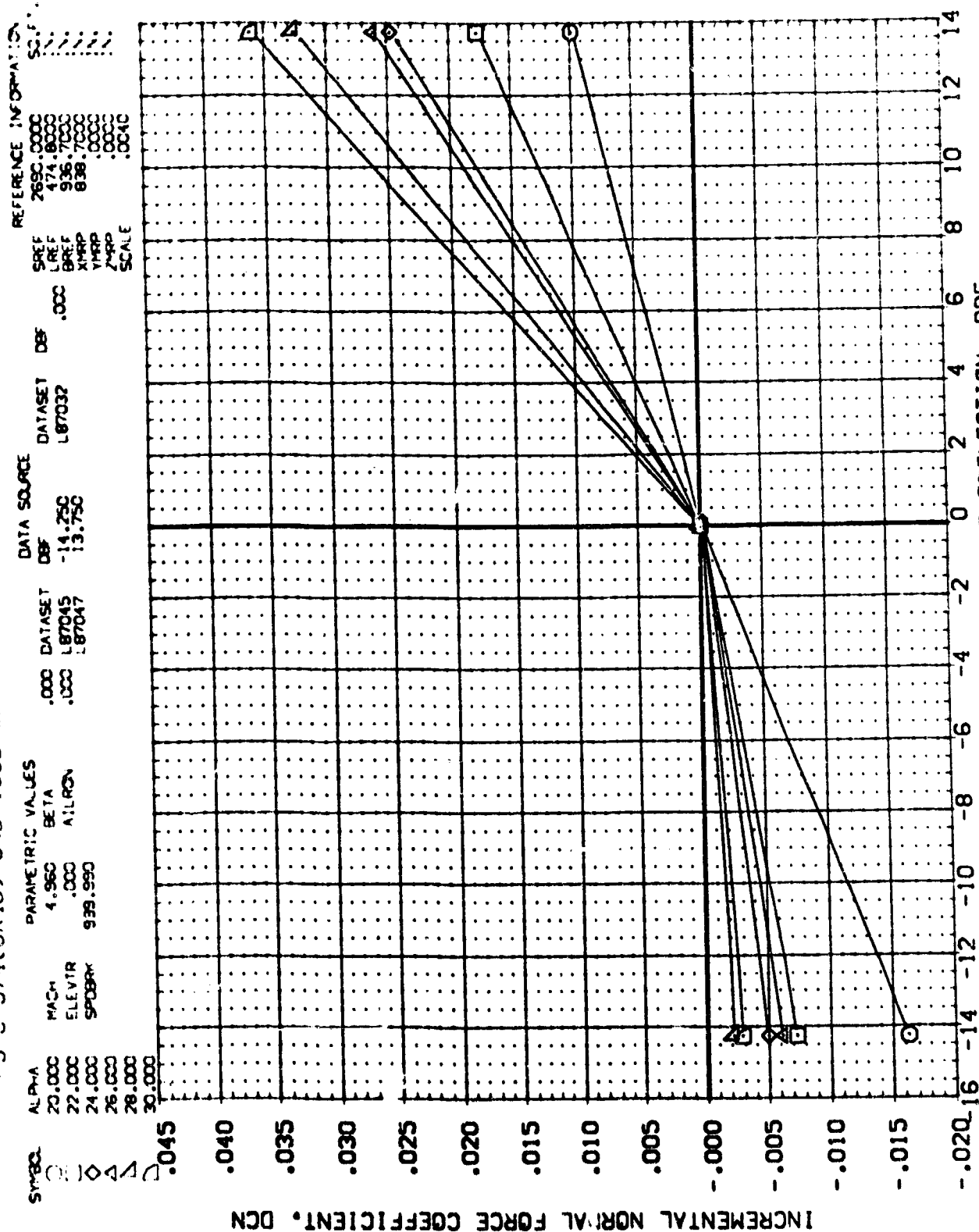


FIG. 35
INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

(187045)

MSFC 574(CA48) ORB 139B W/ALT NCSE

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DBF	SCALE	REFERENCE INFORMATION
□	32.000	ELEVTR	4.960 BETA	DBF	187032	.000	10000	7690.0000
△	34.000	SPDRK	.000 AILRON	DBF	187045	.000	10000	474.8000
○	36.000		999.990	DBF	187047	.000	10000	936.7000
▽	38.000			DBF		.000	10000	838.0000
◇	40.000			DBF		.000	10000	0.0000

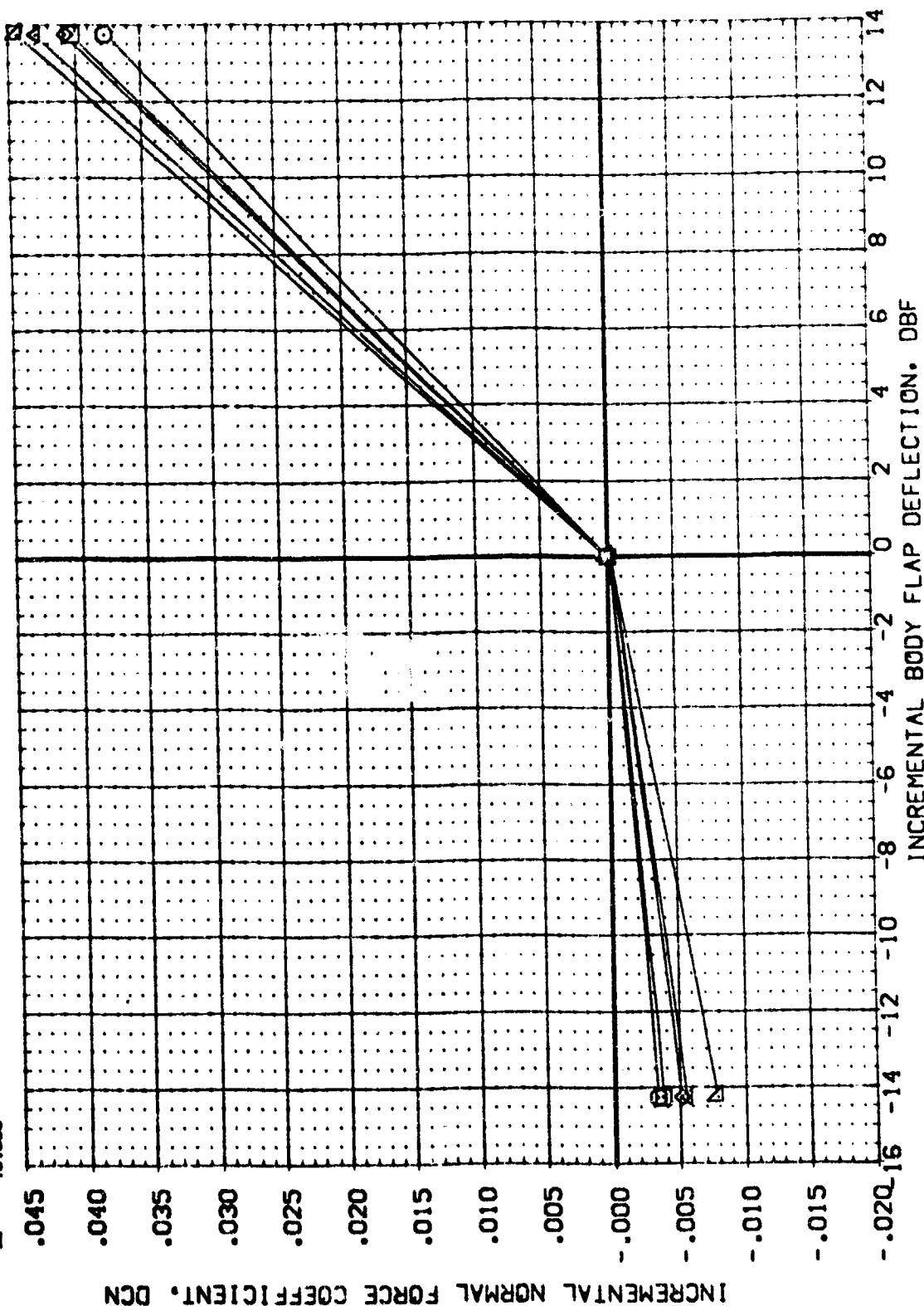


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NCSE
PAGE : 24C

[L870444]

MSFC 574(CA48) ORB 139B W/ALT NOSE

SYMBOL			PARAMETRIC VALUES			DATA SOURCE			REFERENCE INFORMATION		
ALPHA	0.000	MACH	.600	BE (A	.000	DATASET	DBF	SREF	2690.0000	SCAL	1.0000
ELEVTR	2.000	ELEVTR	.000	ATLRON	.000	L87044	.000	LREF	474.8000		
SPO39	4.000	SPO39	999.990			L87046		XMRP	936.7000		
	6.000							YMRP	638.7000		
	8.000							ZMRP	.0000		
	10.000							SCALE	.0010		

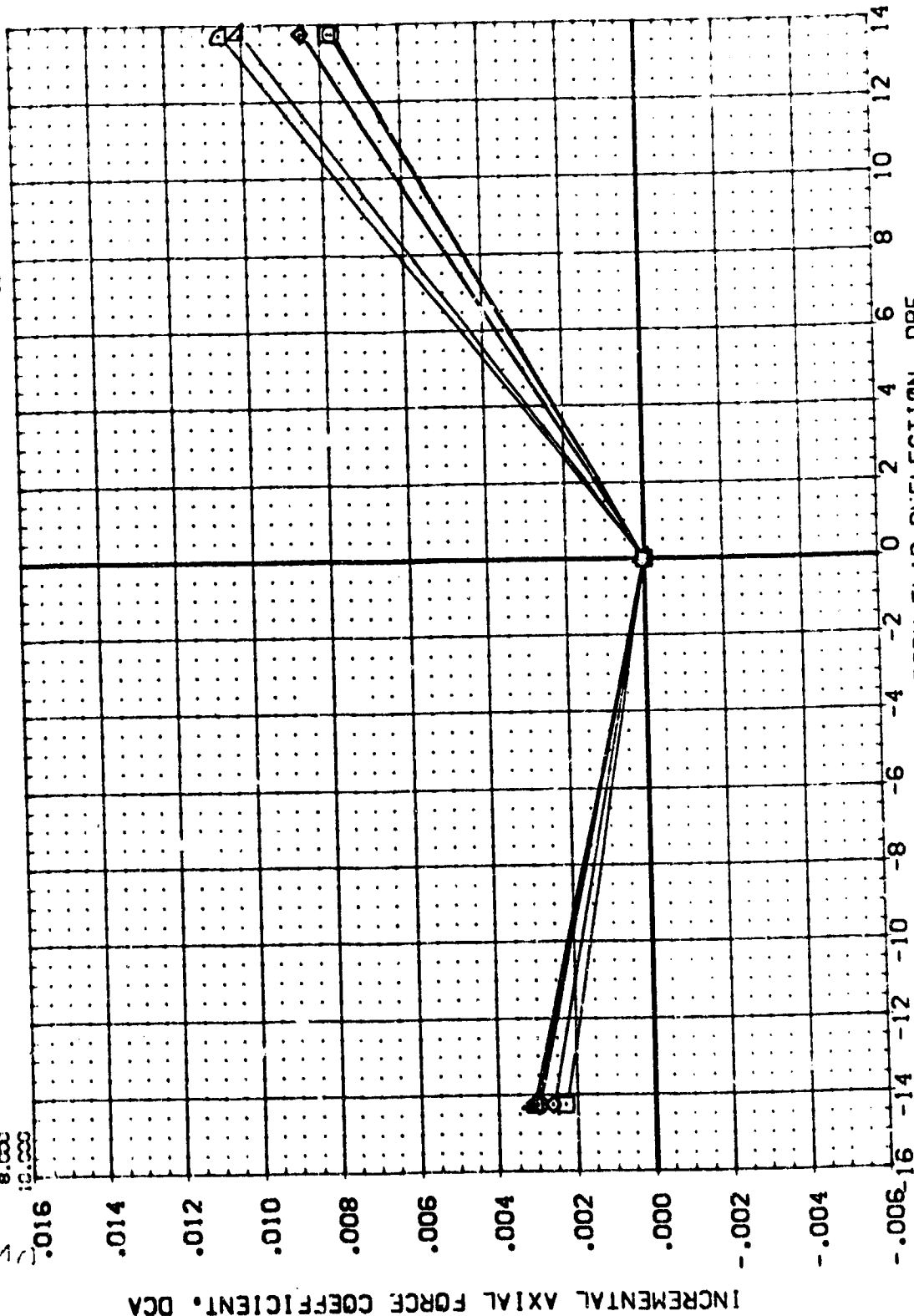


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

MSFC 574(CA48) ORB 139B W/ALC NCSE

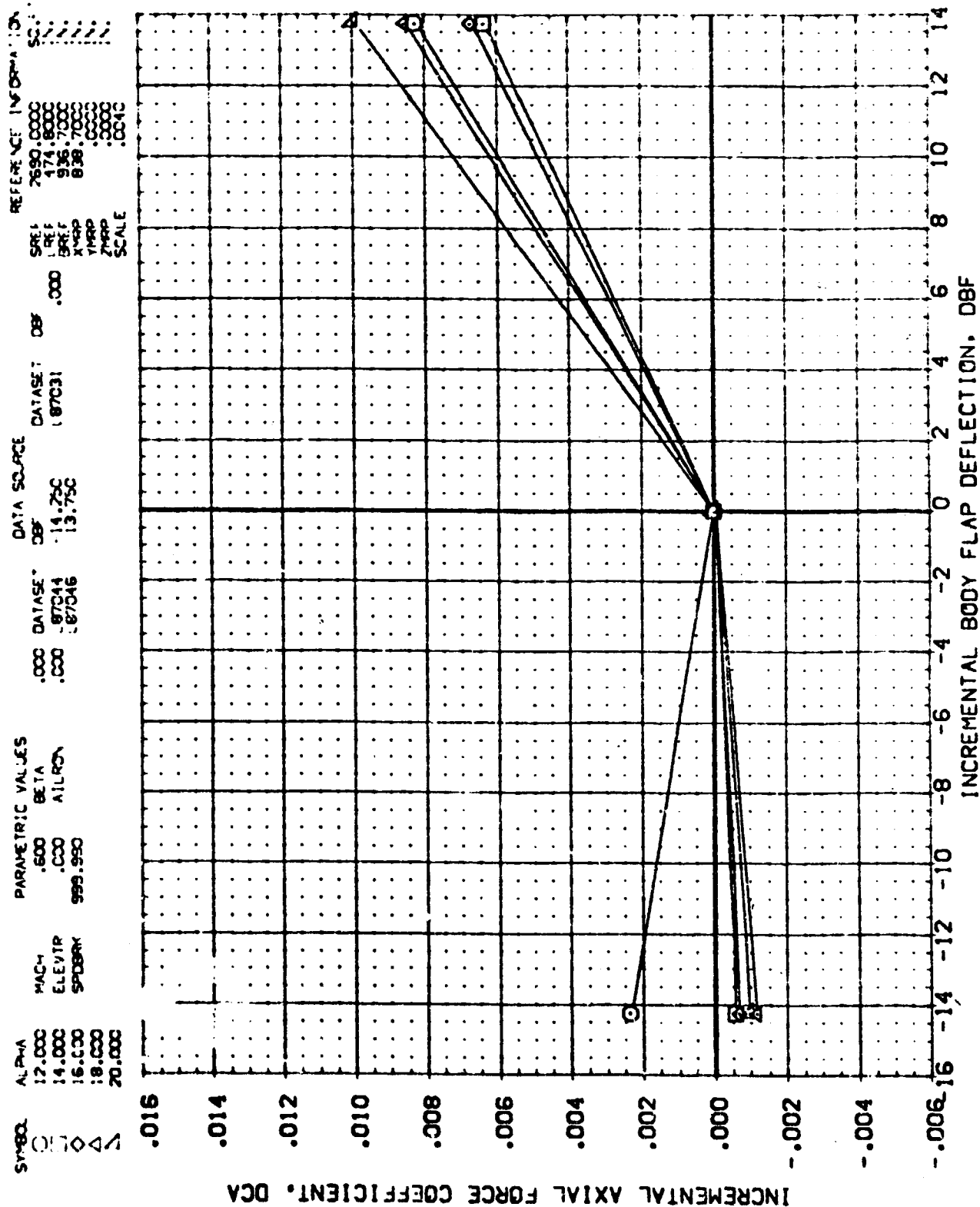


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

WSEC 574(0A48) ORB 1398 W/ALT NOSE

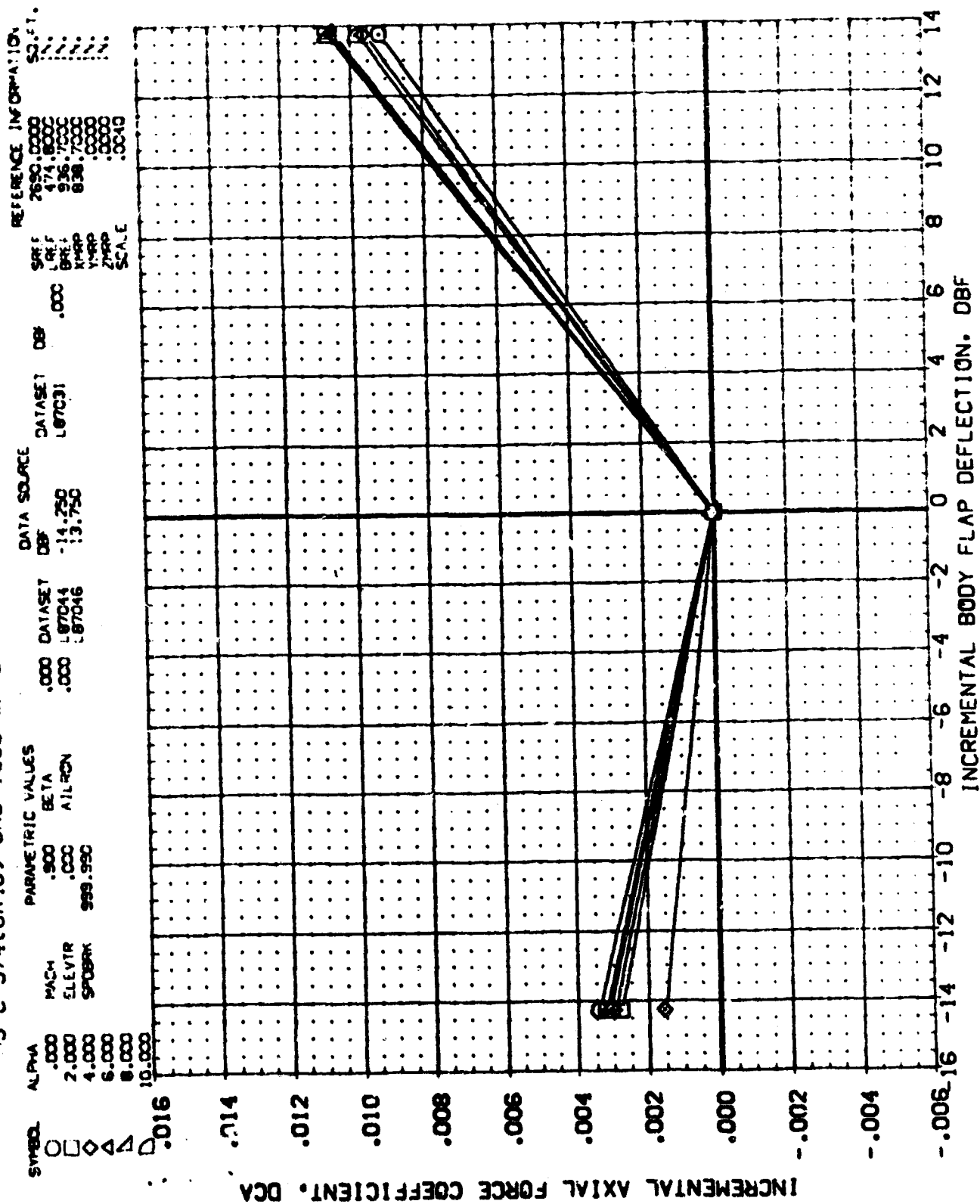


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

(L87044)

MSFC 574(0A48) ORB : 39B W/ALT NOSE

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATA SET	DBF	SCALE	REFERENCE INFORMATION
○	12.000		BETA					2650.0000
□	14.000		AILRON					474.0000
◇	16.000							536.7000
△	18.000							838.7000
▽	20.000							0.0000
								0.0000
								0.0040

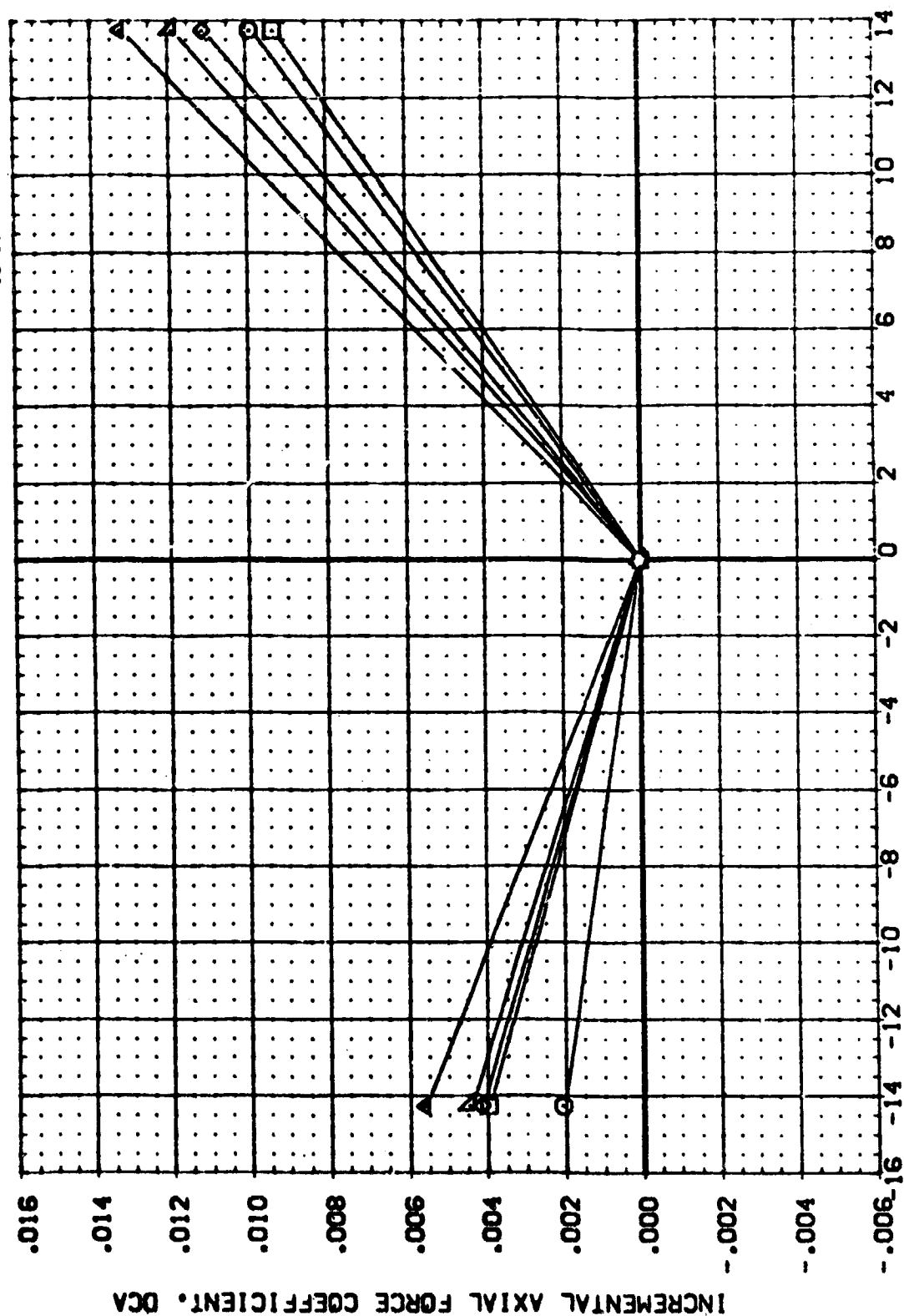


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

15FC 574(0A48) ORB 139B W/ALT NCSE (L87044)
 SYMB. ALPHA MACH ELEVTR SPDRK
 .000 .000 .000 .000
 2.000 1.200 .000 .000
 4.000 .000 .000 .000
 6.000 999.990
 8.000
 10.000
 DATA SOURCE DATASET DBF
 DBF 14.250
 13.750
 DATASET DBF
 L87031
 L87044
 L87046
 PARAMETRIC VALUES
 BETA
 AILRON
 REFERENCE INFORMATION
 SREF 2690.0000
 LRR 474.8000
 BR F 936.7000
 XMRP 838.7000
 YMRP .0000
 ZMRP .0000
 SCALE .0040
 SQ.FT. 777777

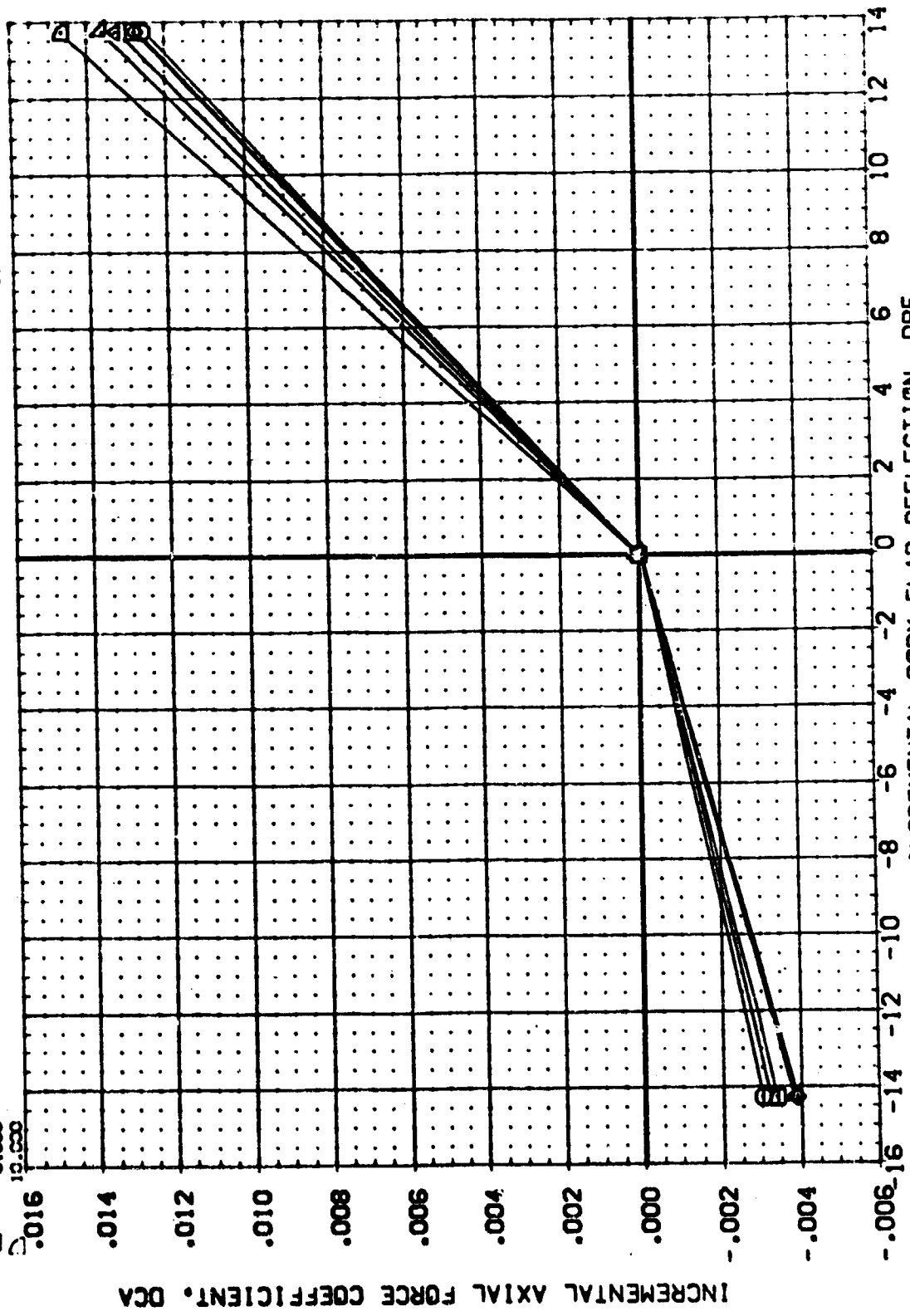


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE
 PAGE 1245

(L87044)

VSFC 574(CA48) ORB 139B W/ALT NOSE

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DBF	SCALE	REFERENCE INFORMATION
○	12.000		1.200 BETA	DBF	L87031	.000	SREF	2690.0000
◇	14.000		.000 ALT-RON	DBF	L87044	.000	LREF	474.8000
△	16.000		999.990	DBF	L87046	.000	BREF	936.7000
▽	18.000						XMRP	838.0000
□	20.000						YMRP	.0000
							ZMRP	.0000
							SCALE	.0040

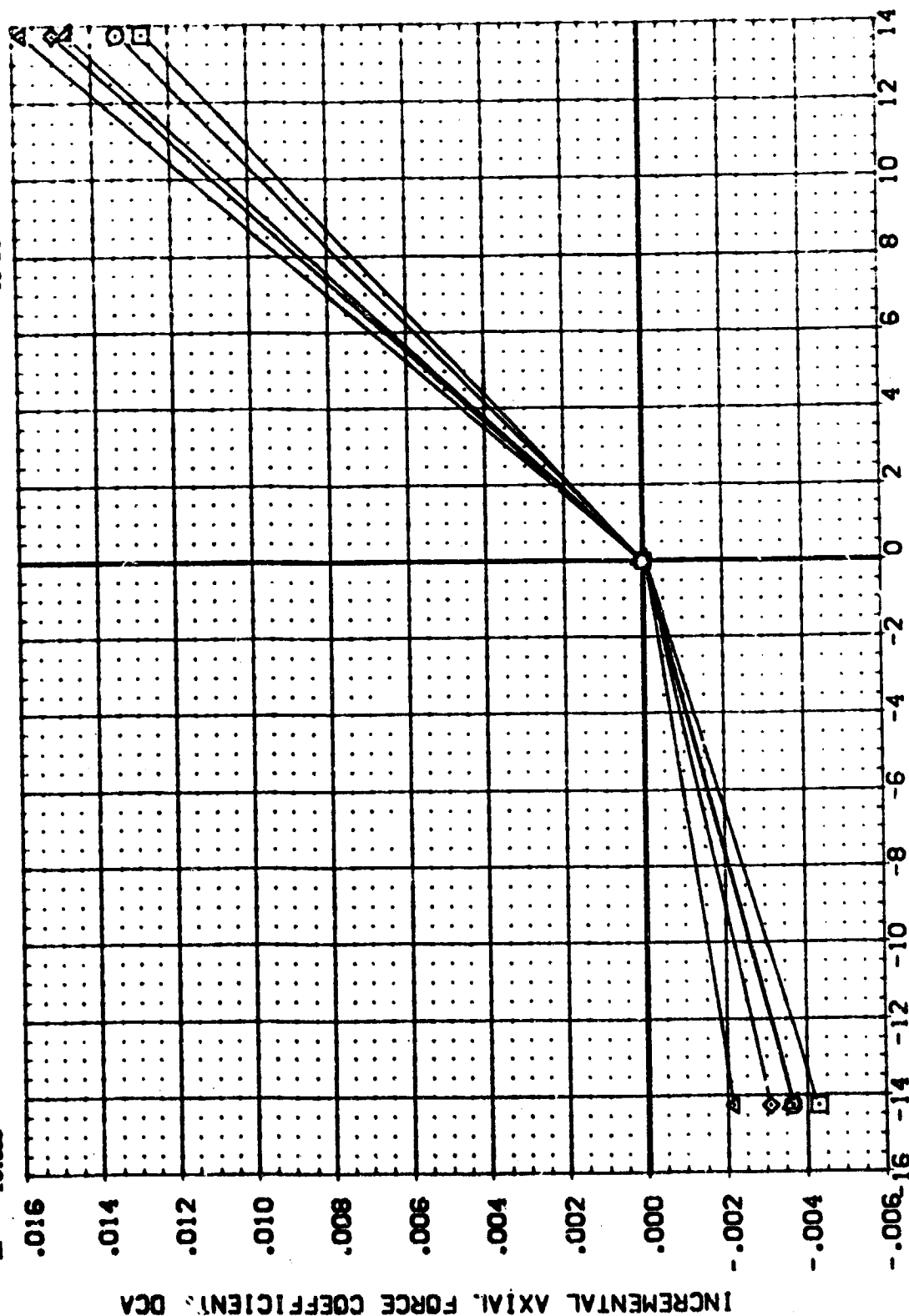


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

(187044)

MSFC 574(0A48) ORB 1398 W/ALT NOSE

REFERENCE INFORMATION
 SREF 2690.0000
 REF 474.8000
 BREF 936.7000
 XREF 838.7000
 YREF .0000
 ZREF .0000
 SCALE .0040

DATA SOURCE
 DBF .000
 DATASE L87031
 DBF 14.250
 DBF 13.750

PARAMETRIC VALUES
 BETA .000
 ALTITUDE 999.990

MACH 1.960
 ELEVTR .000
 SPDRK 999.990

ALPHA
 .000
 2.000
 4.000
 6.000
 8.000
 10.000

SYMBOL
 10.000
 8.000
 6.000
 4.000
 2.000
 .000

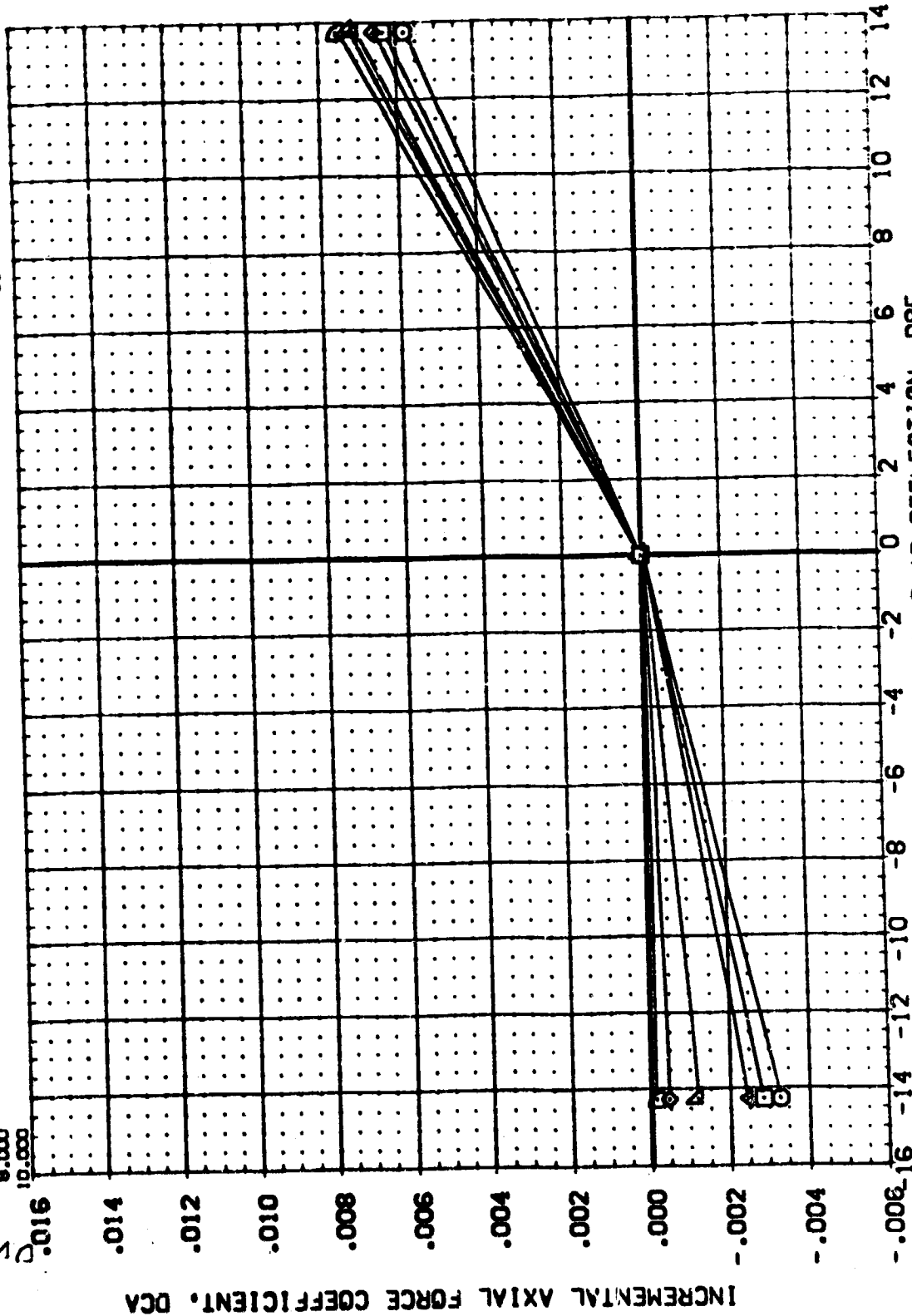


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 1398 WITH ALT. NOSE

2690 0000
474 0000
936 7000
838 7000
0000 0000
0000 0000
0010

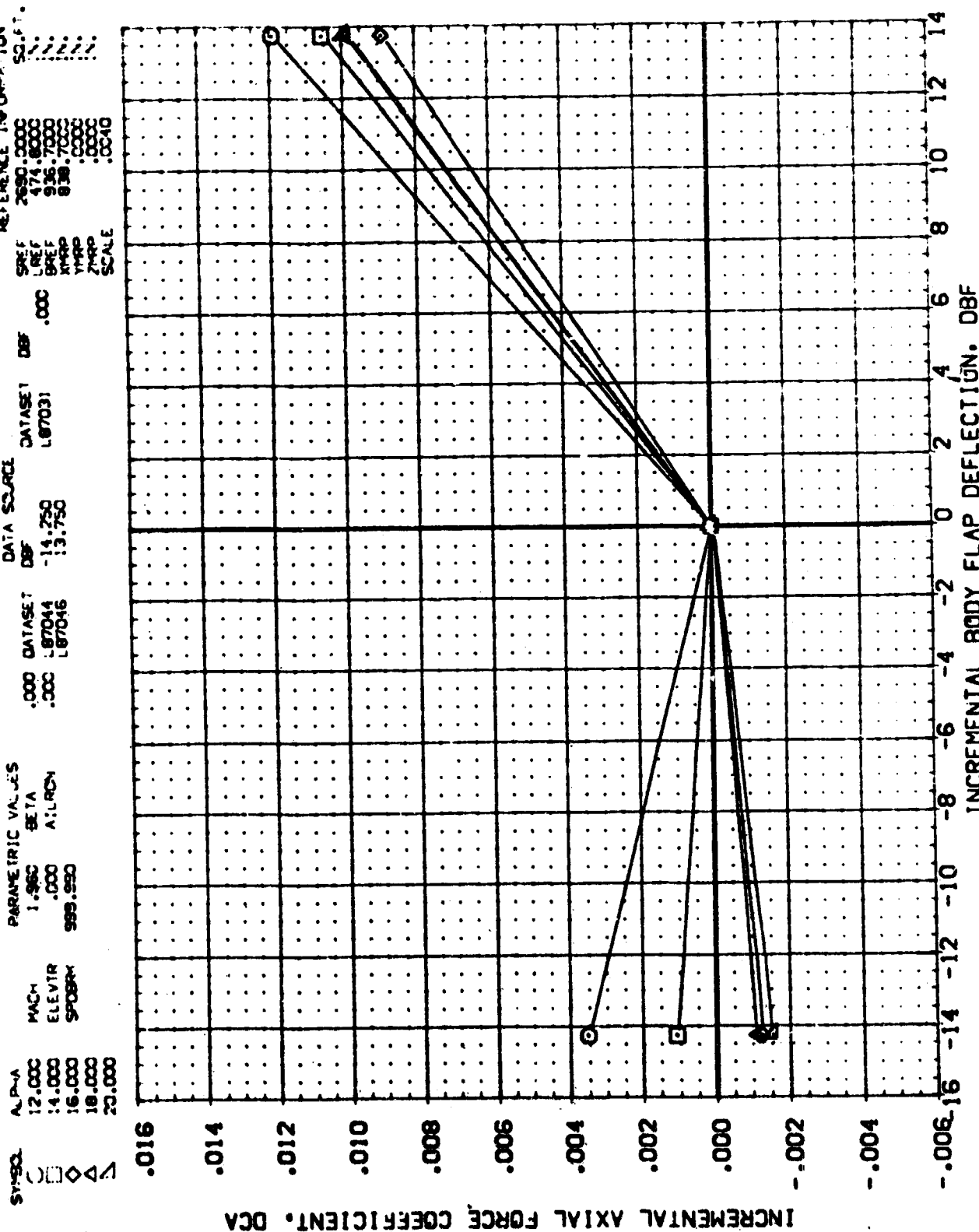


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

MSFC 574(0A48) ORB 139B W/ALT NOSE (L87044)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
□	12.000	ELEVTR	2.950	BETA	.000	DBF	SREF	2690.0000
◇	14.000	SPOBRK	.000	AILRON	.000	DBF	LREF	474.8000
△	16.000		999.990		L87044	DBF	BREF	936.7000
	18.000				L87046	DBF	XREF	838.7000
	20.000					DBF	YREF	.0000
						DBF	ZREF	.0000
						DBF	SCALE	.0040

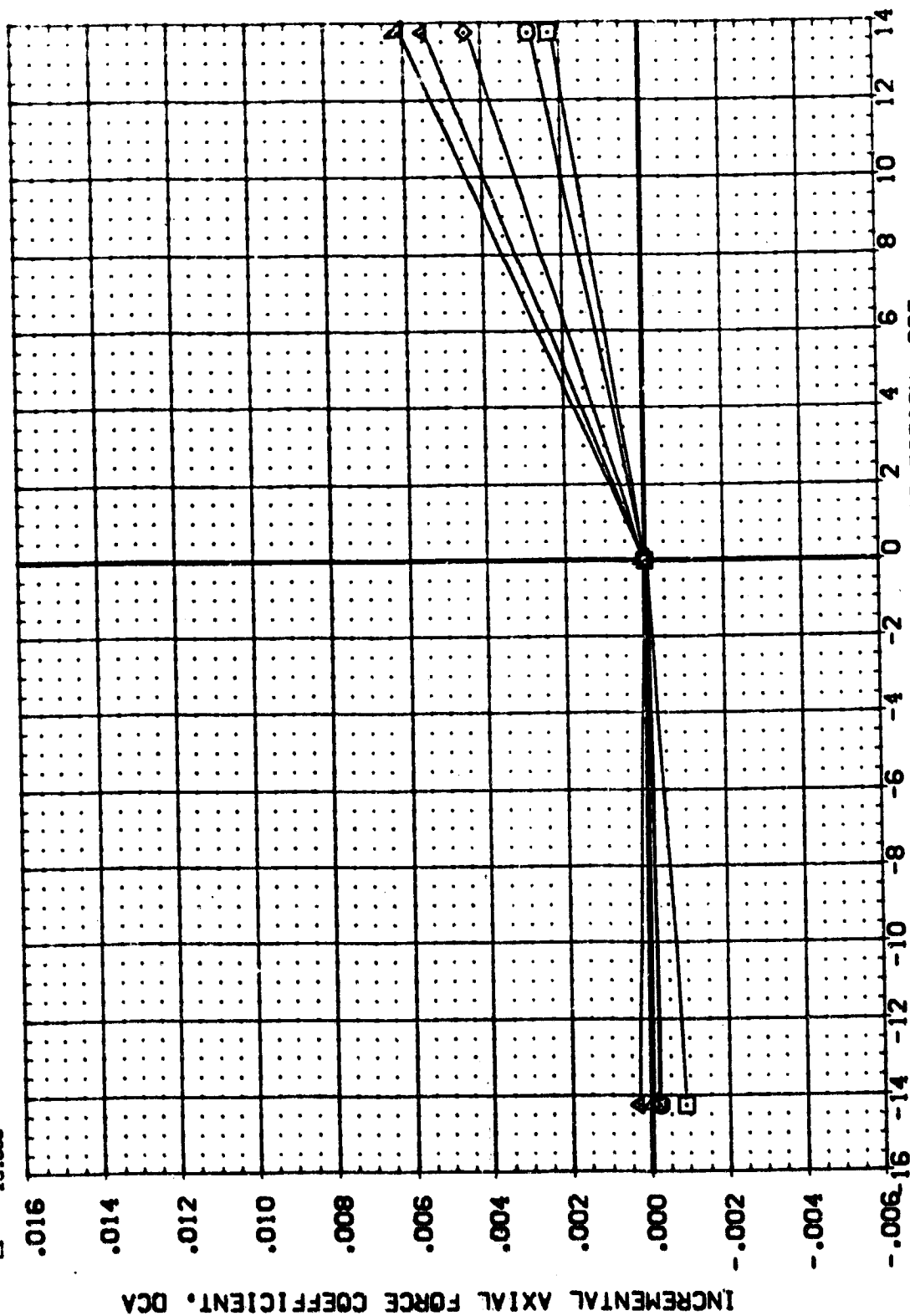


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

YSEC 574(0A48) CRB 139B W/ALT NOSE

(L87044)

SYMB.	ALPHA	MACH	ELEVTR	SPOBRK	PARAMETRIC VALUES	DATA SOURCE	DATA SET	DBF	REF	SCALE	REFERENCE INFORMATION
○	.000	4.960	BETA	.000	L87044	DBF	.000	269C.0000	50.000		
□	2.000	.000	AIRLN	999.990	L87046			474.8000			
△	4.000							936.7000			
△	6.000							838.7000			
△	8.000							.0000			
△	10.000							.0000			
								.0040			

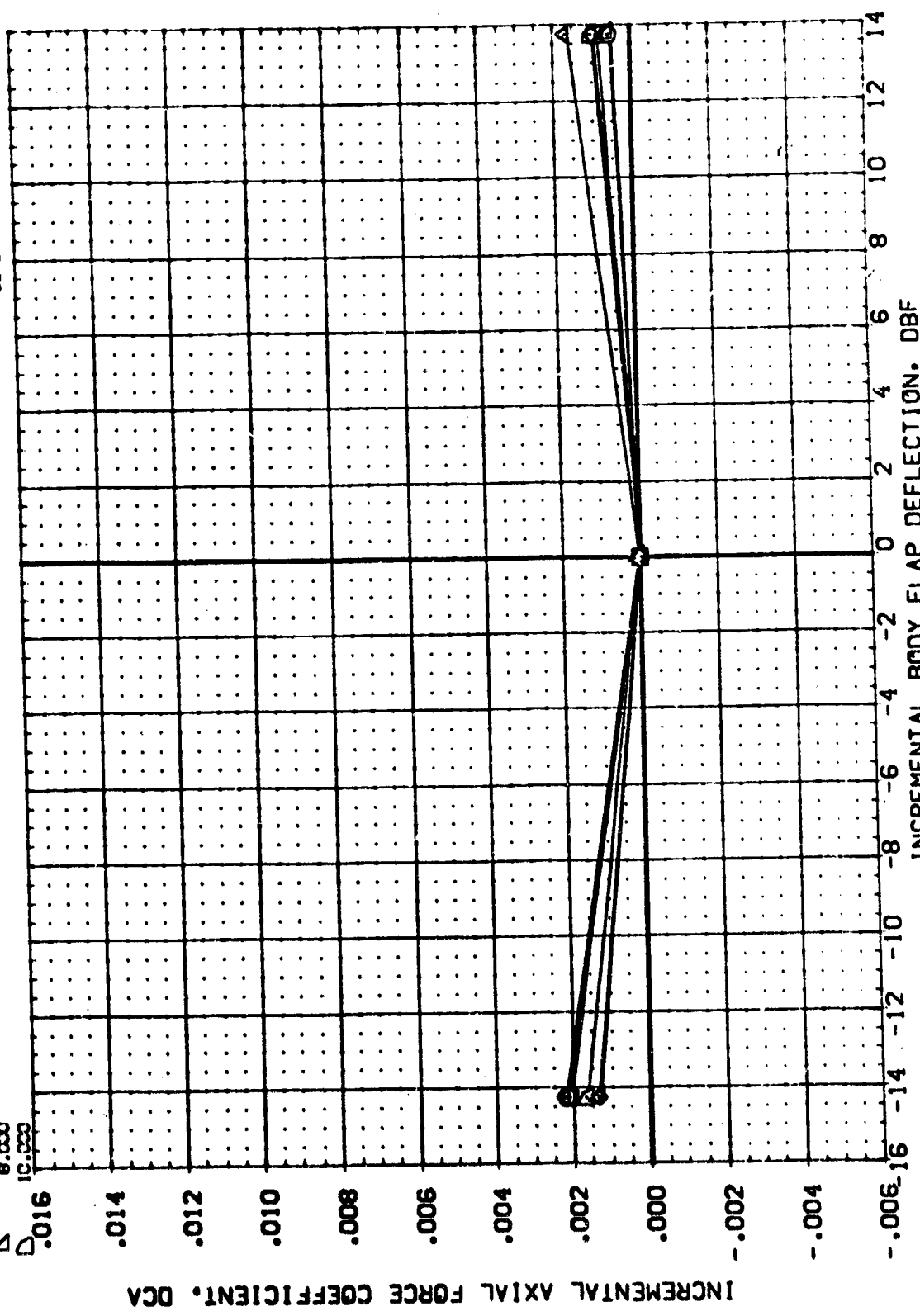


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR CRBITER 139B WITH ALT. NOSE

[L87044]

VSFC 574(0A48) ORB 139B W/ALT NOSE

REFERENCE INFORMATION
SCALING
2690.0000
474.8000
936.7000
838.7000
0.0000
0.0000
0.0000
0.0010

DATA SOURCE
DBF
L87031
L87046
L87046
L87046

PARAMETRIC VALUES
BETA
4.960
AILRON
999.990

DATA SOURCE
DBF
-14.250
13.750

PARAMETRIC VALUES
BETA
4.960
AILRON
999.990

DATA SOURCE
DBF
-14.250
13.750

PARAMETRIC VALUES
BETA
4.960
AILRON
999.990

DATA SOURCE
DBF
-14.250
13.750

PARAMETRIC VALUES
BETA
4.960
AILRON
999.990

DATA SOURCE
DBF
-14.250
13.750

PARAMETRIC VALUES
BETA
4.960
AILRON
999.990

DATA SOURCE
DBF
-14.250
13.750

PARAMETRIC VALUES
BETA
4.960
AILRON
999.990

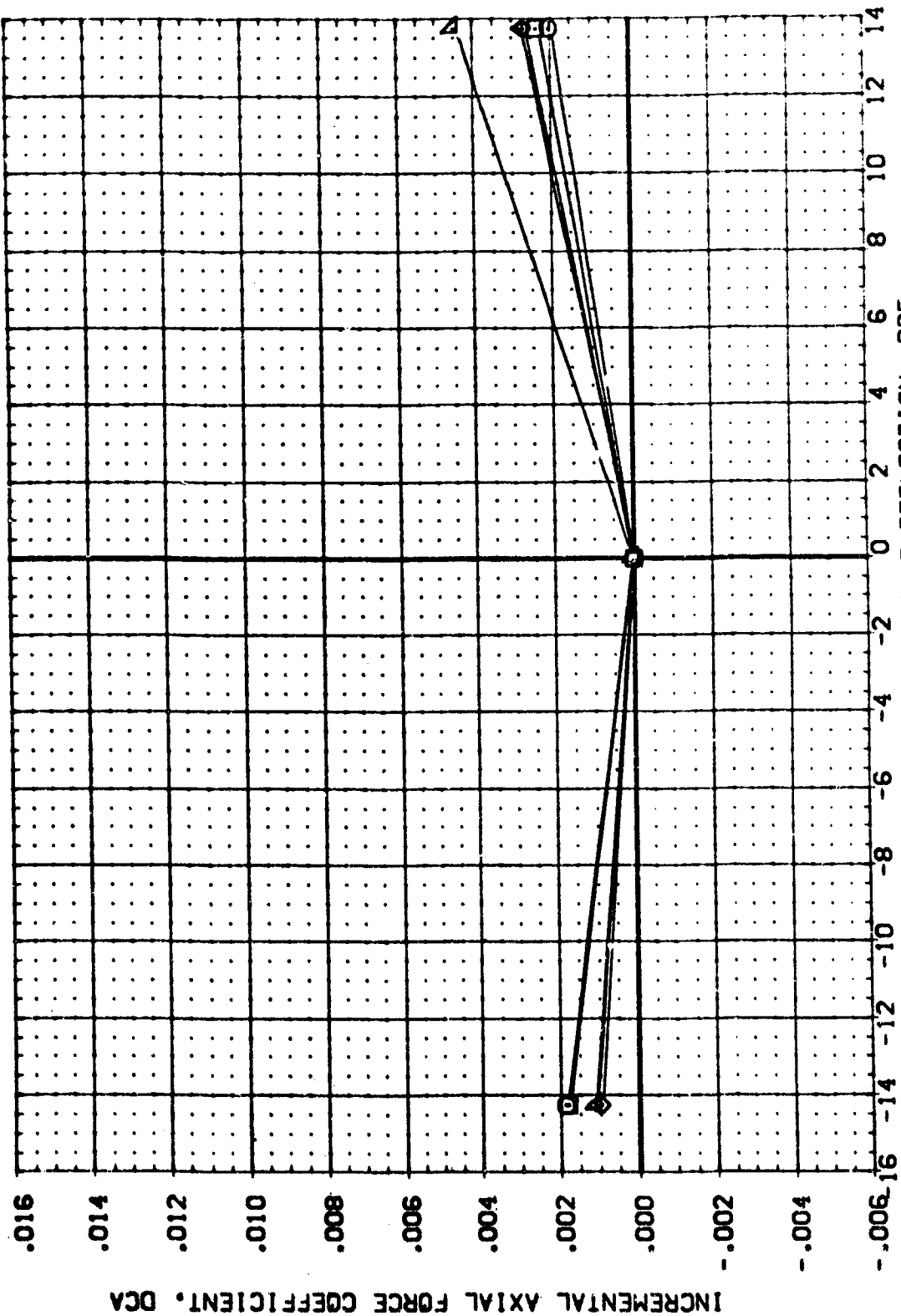


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

(187045)

VSFC 574(CA48) CR3 139B W/ALT NOSE

SYNOPSIS
ALPHA
20.000
22.000
24.000
26.000
28.000
30.000

PARAMETRIC VALUES
MACH 2.990
ELEVTR .000
SPDRK 999.990

DATA SOURCE
DBF
-14.25C
13.75C

DATASET
DBF
187032

REFERENCE INFORMATION
SREF 2690.0000
LREF 474.8000
XREF 936.7000
YREF 836.7000
ZREF .0000
XPRP .0000
YPRP .0000
ZPRP .0000
SCALE .0040

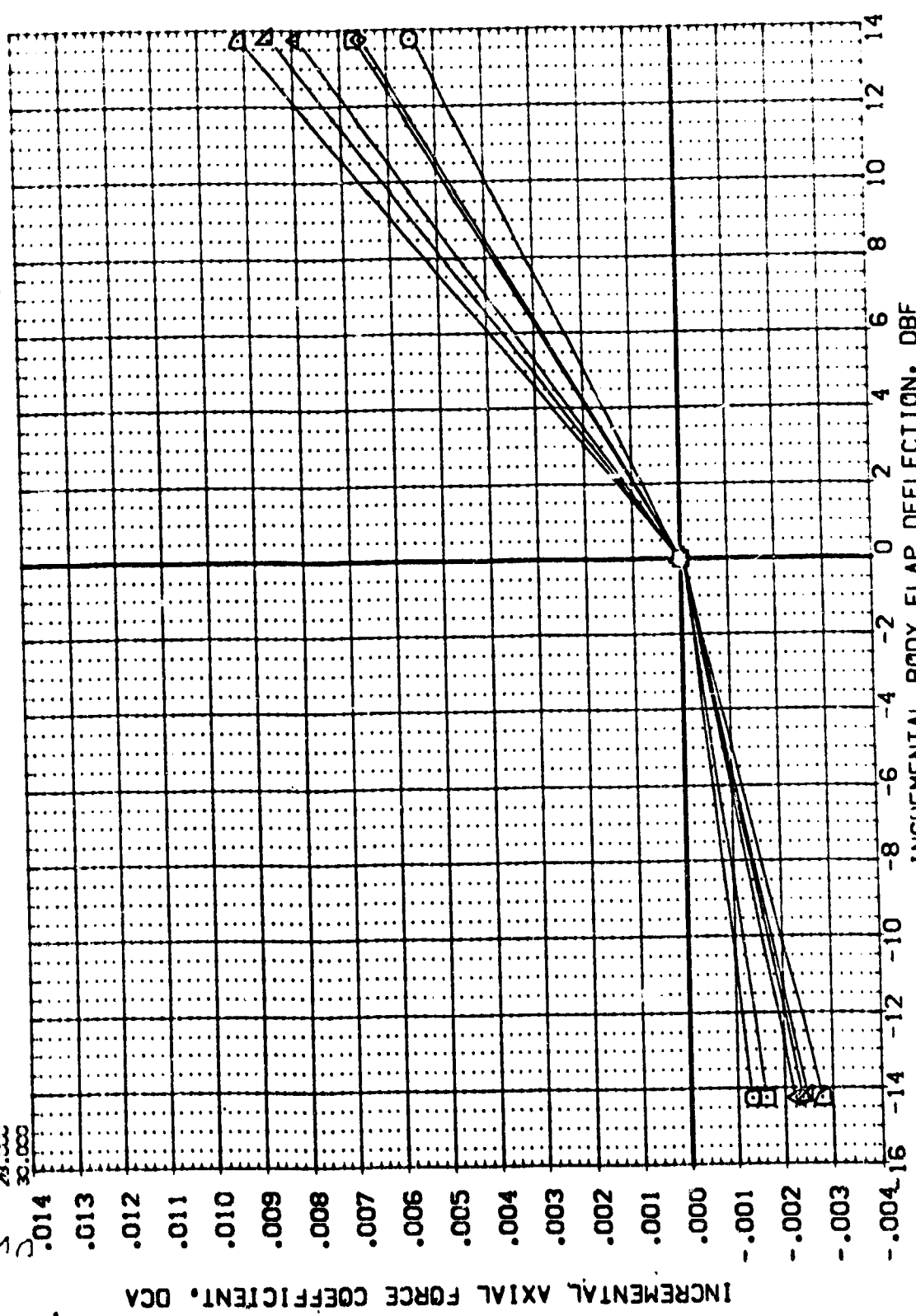


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

VSFC 574(0A48) ORB 1398 W/ALT NOSE (L87045)

SY-EC	ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
0.00	32.000	2.990	BETA	.000	DATASET	DBF	SREF	2690.0000
0.00	34.000	.000	AILRON	.000	L87045	.000	REF	474.8000
0.00	36.000	999.990			L87047		REF	936.7000
0.00	38.000						X-REF	638.7000
0.00	40.000						Y-REF	.0000
							Z-REF	.0000
							SCALE	.0010

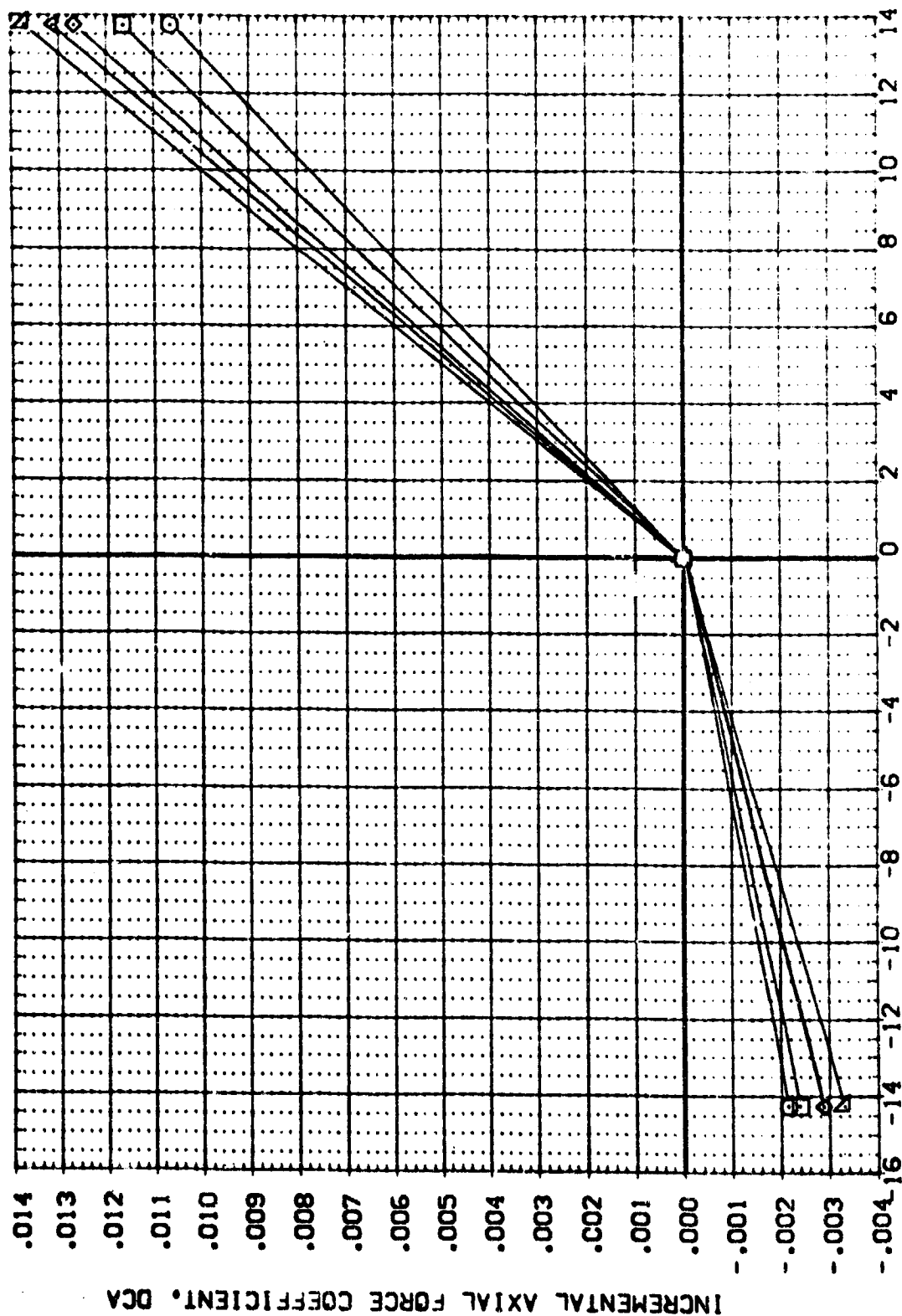


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 1398 WITH ALT. NOSE

(L87045)

VSFC 574(0A48) ORB 139B W/ALT NOSE

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	MACH	DBF	DBF	SREF	SQ.FT.
20.000	4.960	.000	.000	474.8000	22.7777
22.000	BETA	L87045	L87032	BREF	
24.000	.000	.000		936.7000	
26.000	AILRON	L87047		XRRP	
28.000	999.990			YRRP	
30.000				ZRRP	
				SCALE	
					.0040

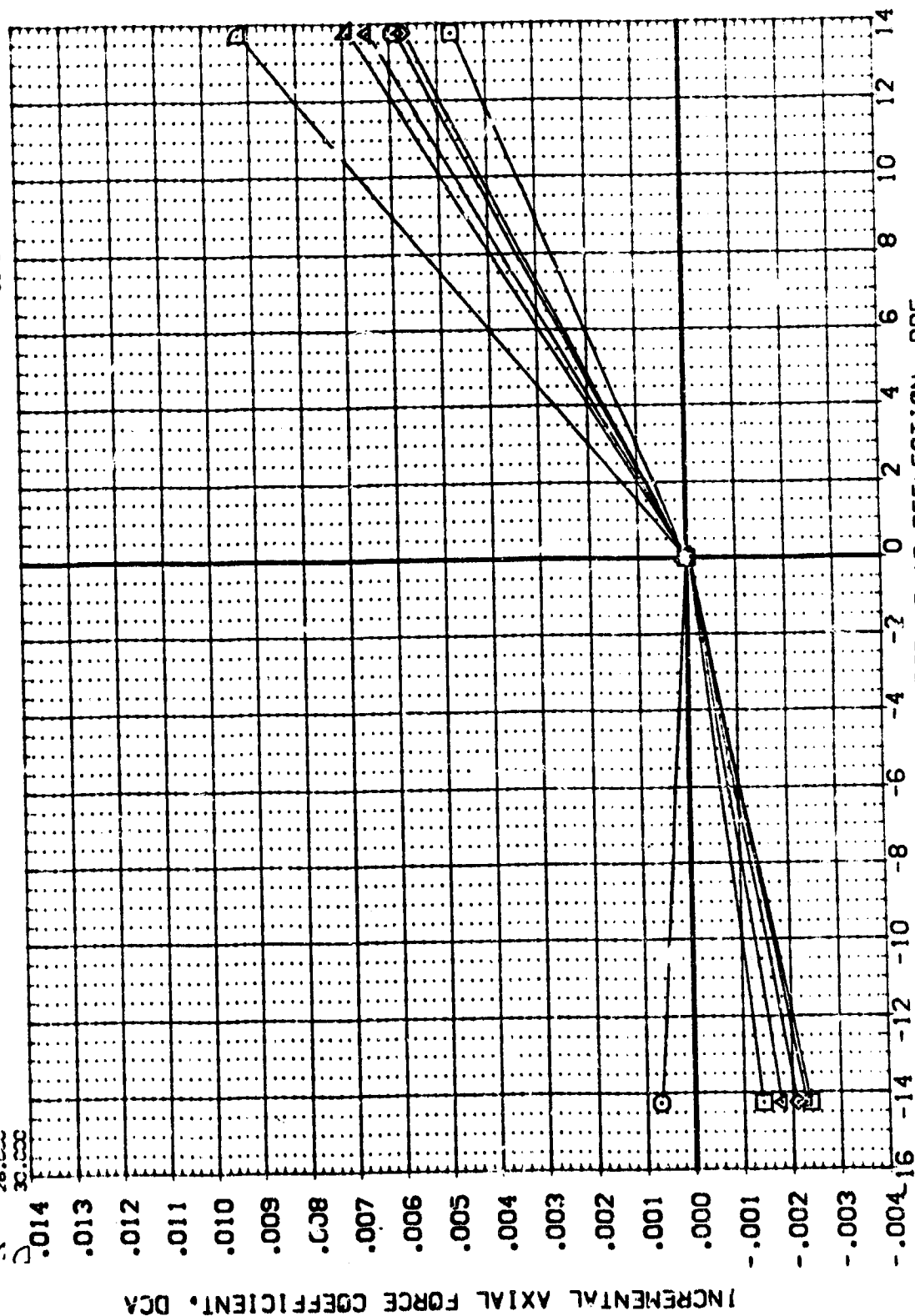


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

WSFC 574(CA48) CRB 1393 W/ALT NCSE

REFERENCE IN ORDER TO:

7690.0000	22.11
474.8000	22.11
926.7000	22.11
638.7000	22.11
0000.0000	22.11
0000.0000	22.11
0040.0000	22.11

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DATA SET
1. 87032

DATA SOURCE
OF
-14.250
13.750

DATASET
 L87C45
 L87C47

RIC VALJES
BETA
AIRCON

PARA-ET
4.950
.000
999.990

MACH
 ELEVTR
 SPERN

ALPHA	32.000	34.000	36.000	38.000	40.000
1	1.000	1.000	1.000	1.000	1.000
2	1.000	1.000	1.000	1.000	1.000
3	1.000	1.000	1.000	1.000	1.000
4	1.000	1.000	1.000	1.000	1.000
5	1.000	1.000	1.000	1.000	1.000
6	1.000	1.000	1.000	1.000	1.000
7	1.000	1.000	1.000	1.000	1.000
8	1.000	1.000	1.000	1.000	1.000
9	1.000	1.000	1.000	1.000	1.000
10	1.000	1.000	1.000	1.000	1.000
11	1.000	1.000	1.000	1.000	1.000
12	1.000	1.000	1.000	1.000	1.000
13	1.000	1.000	1.000	1.000	1.000
14	1.000	1.000	1.000	1.000	1.000
15	1.000	1.000	1.000	1.000	1.000
16	1.000	1.000	1.000	1.000	1.000
17	1.000	1.000	1.000	1.000	1.000
18	1.000	1.000	1.000	1.000	1.000
19	1.000	1.000	1.000	1.000	1.000
20	1.000	1.000	1.000	1.000	1.000
21	1.000	1.000	1.000	1.000	1.000
22	1.000	1.000	1.000	1.000	1.000
23	1.000	1.000	1.000	1.000	1.000
24	1.000	1.000	1.000	1.000	1.000
25	1.000	1.000	1.000	1.000	1.000
26	1.000	1.000	1.000	1.000	1.000
27	1.000	1.000	1.000	1.000	1.000
28	1.000	1.000	1.000	1.000	1.000
29	1.000	1.000	1.000	1.000	1.000
30	1.000	1.000	1.000	1.000	1.000
31	1.000	1.000	1.000	1.000	1.000
32	1.000	1.000	1.000	1.000	1.000
33	1.000	1.000	1.000	1.000	1.000
34	1.000	1.000	1.000	1.000	1.000
35	1.000	1.000	1.000	1.000	1.000
36	1.000	1.000	1.000	1.000	1.000
37	1.000	1.000	1.000	1.000	1.000
38	1.000	1.000	1.000	1.000	1.000
39	1.000	1.000	1.000	1.000	1.000
40	1.000	1.000	1.000	1.000	1.000
41	1.000	1.000	1.000	1.000	1.000
42	1.000	1.000	1.000	1.000	1.000
43	1.000	1.000	1.000	1.000	1.000
44	1.000	1.000	1.000	1.000	1.000
45	1.000	1.000	1.000	1.000	1.000
46	1.000	1.000	1.000	1.000	1.000
47	1.000	1.000	1.000	1.000	1.000
48	1.000	1.000	1.000	1.000	1.000
49	1.000	1.000	1.000	1.000	1.000
50	1.000	1.000	1.000	1.000	1.000
51	1.000	1.000	1.000	1.000	1.000
52	1.000	1.000	1.000	1.000	1.000
53	1.000	1.000	1.000	1.000	1.000
54	1.000	1.000	1.000	1.000	1.000
55	1.000	1.000	1.000	1.000	1.000
56	1.000	1.000	1.000	1.000	1.000
57	1.000	1.000	1.000	1.000	1.000
58	1.000				

011044
Baus

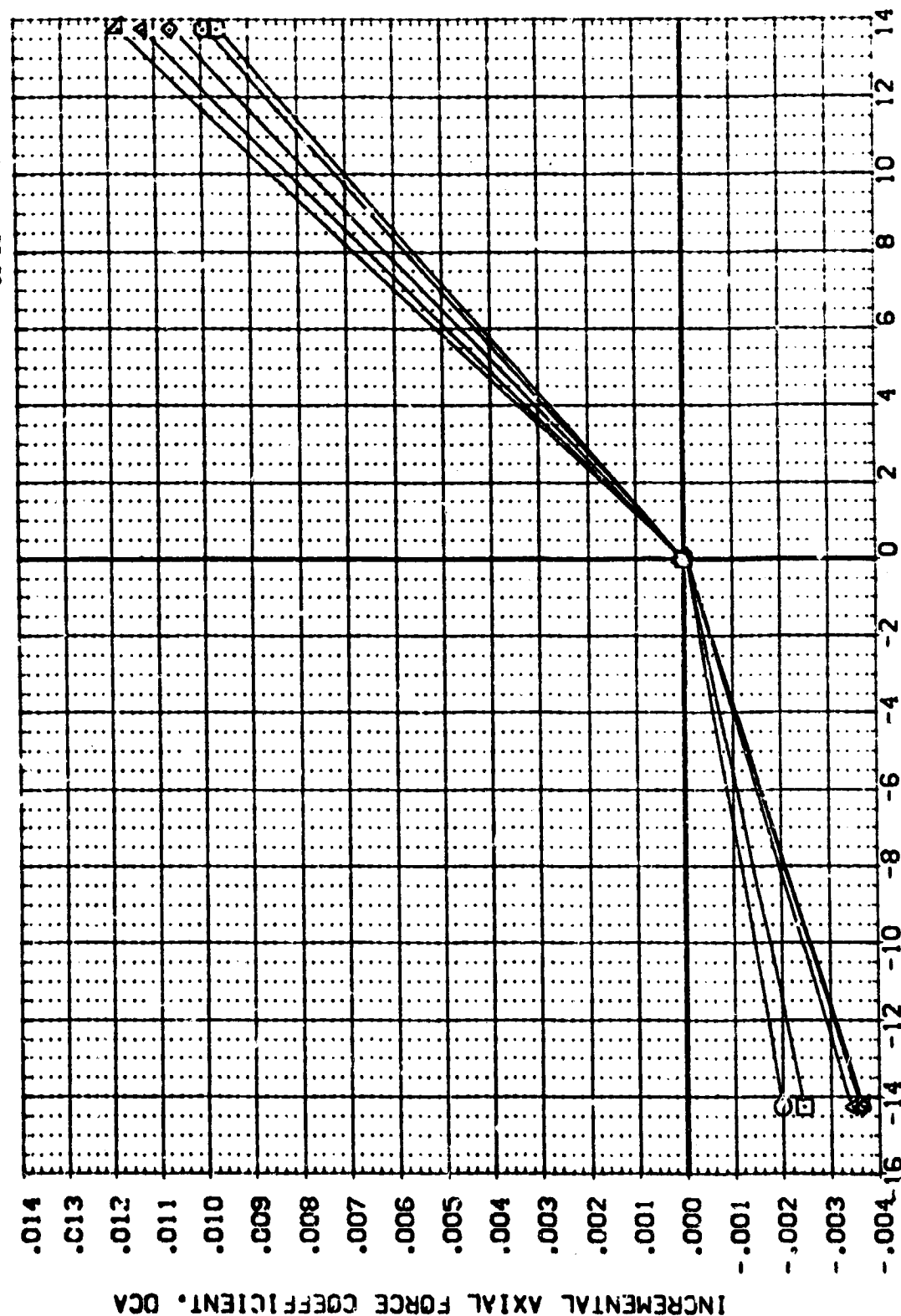


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

MSFC 574(0A40) ORB 139B W/ALT NOSE (L87044)

SYG2	ALPHA	MACH	ELEVTR	SPOBRK	PARAMETRIC VALUES	DATA SOURCE	DATASET	DBF	REFERENCE INFORMATION
0.000	.000	.600	.000	AIRCON	.000	L87044	.000	SREF	2690.0000
2.000	.000	.000	.000	AIRCON	.000	L87044	.000	LREF	474.8000
4.000	.000	.000	.000	AIRCON	.000	L87044	.000	BREF	936.7000
6.000	.000	.000	.000	AIRCON	.000	L87044	.000	YREF	838.7000
8.000	.000	.000	.000	AIRCON	.000	L87044	.000	ZREF	0.0000
10.000	.000	.000	.000	AIRCON	.000	L87044	.000	SCALE	.0040

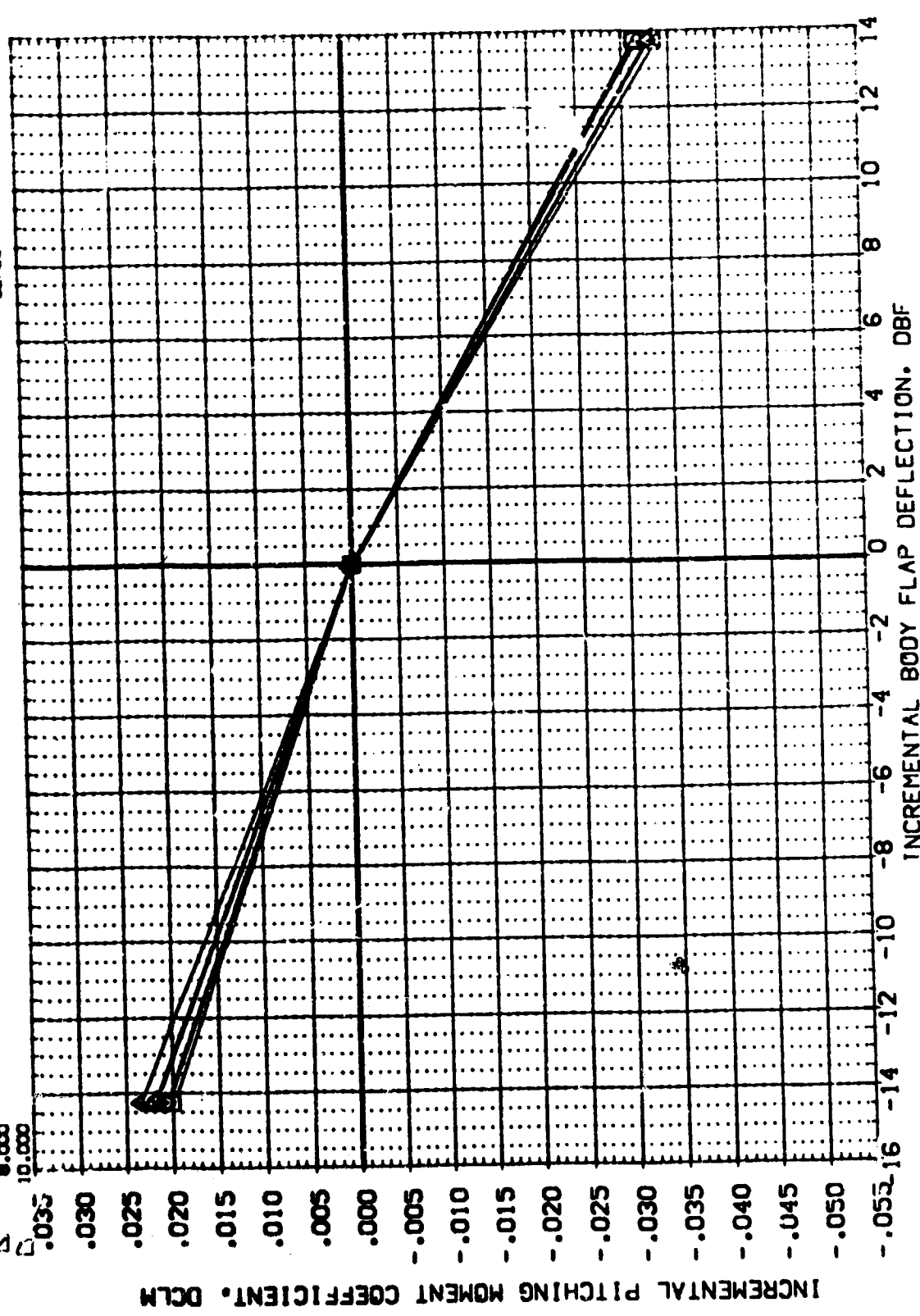


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE



PAGE : 258

MSFC 574 (DA48) ORB : 393 W/A : ACS

REFERENCE IN ORDER

7690.0000
474.8000
936.7000
878.7000
.0000
.0000
.0000

SCALE

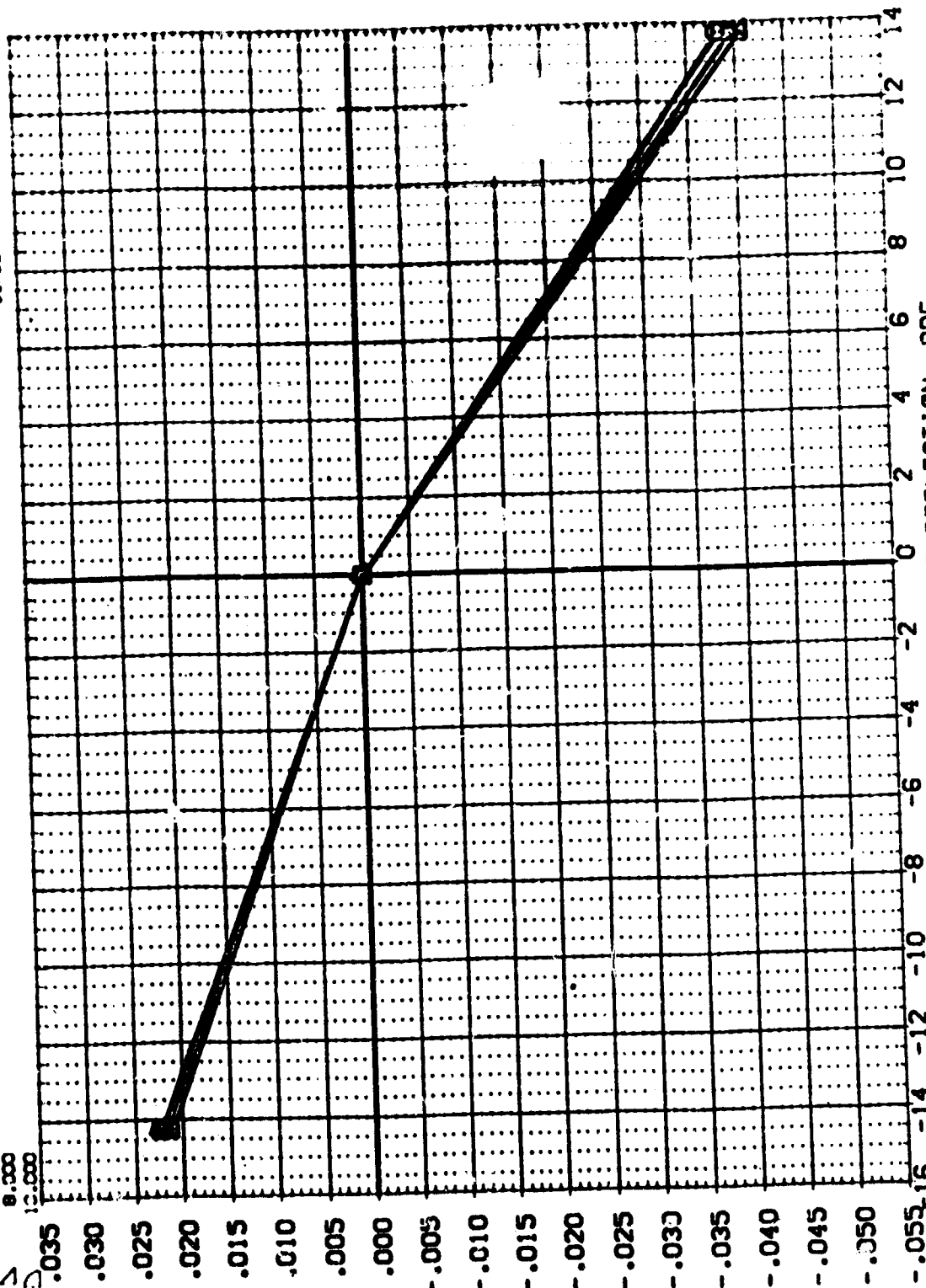
DATA SOURCE	DATE	TIME
DATA SOURCE	DATE	TIME
DATA SOURCE	DATE	TIME

DATA SET 1
L87C44
L87C46

PARAMETRIC VALUES	
.900 BETA	.000
.000 AIRCN	.000
.999 .990	

ALPHA	MACH	ELEVTR	SPEEDM
.000			
2.000			
4.000			

SYNOPSIS



055.16 -14 -12 -10 -8 -6 -4 -2 0 2 4 6
INCREMENTAL BODY FLAP DEFLECTION. DBF

FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALTI. NOSE

PAGE : 259

MSFC 574(0A48) ORB 139B W/ALT NOSE (L87044)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DBF	REFERENCE INFORMATION
0	12.000	ELEVTR	.500 BETA	DBF	.000	.000	2690.0000
1	14.000	SPDRBK	.000 ALLWON	-14.250	L87041	L87031	474.8000
2	16.000		999.990	13.750	L87046		936.7000
3	18.000						838.0000
4	20.000						.0000
							SCALE
							.0010

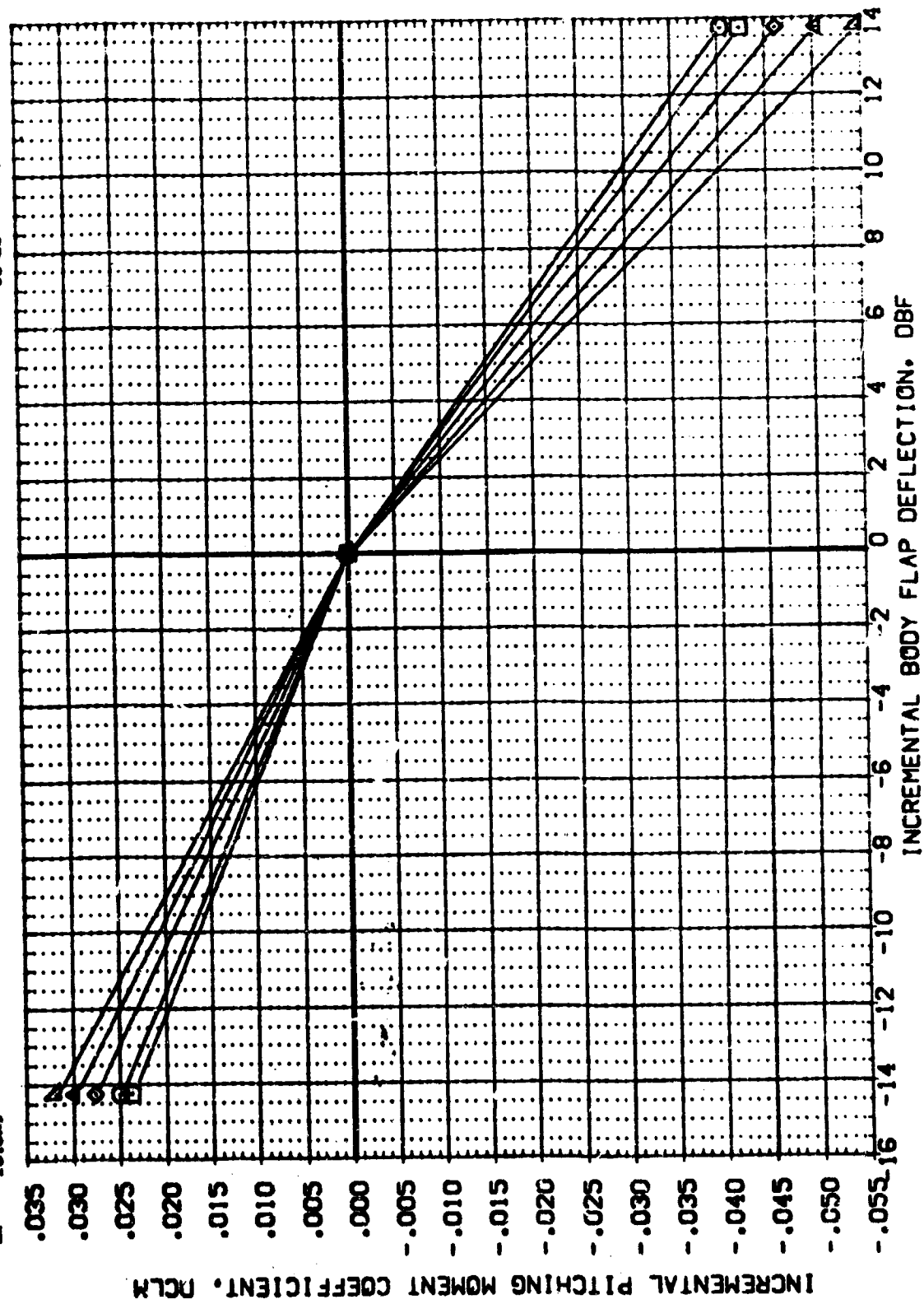


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

(L87044)

VSFC 574(0A48) ORB 1398 W/ALT NOSE

REFERENCE INFORMATION
 SREF 2690.0000
 LREF 474.8000
 SREF 936.7000
 LREF 838.7000
 SREF 1000.0000
 LREF 7000.0000
 SCALE 10000

DATA SOURCE
 DBF -14.750
 DBF 13.750

PARAMETRIC VALUES
 MACH 1.000
 ELEVTR 0.000
 SPOBRK 999.990
 BETA 0.000
 ALLRON 0.000

SYMBOL ALPHA
 0.000
 2.000
 4.000
 6.000
 8.000
 10.000

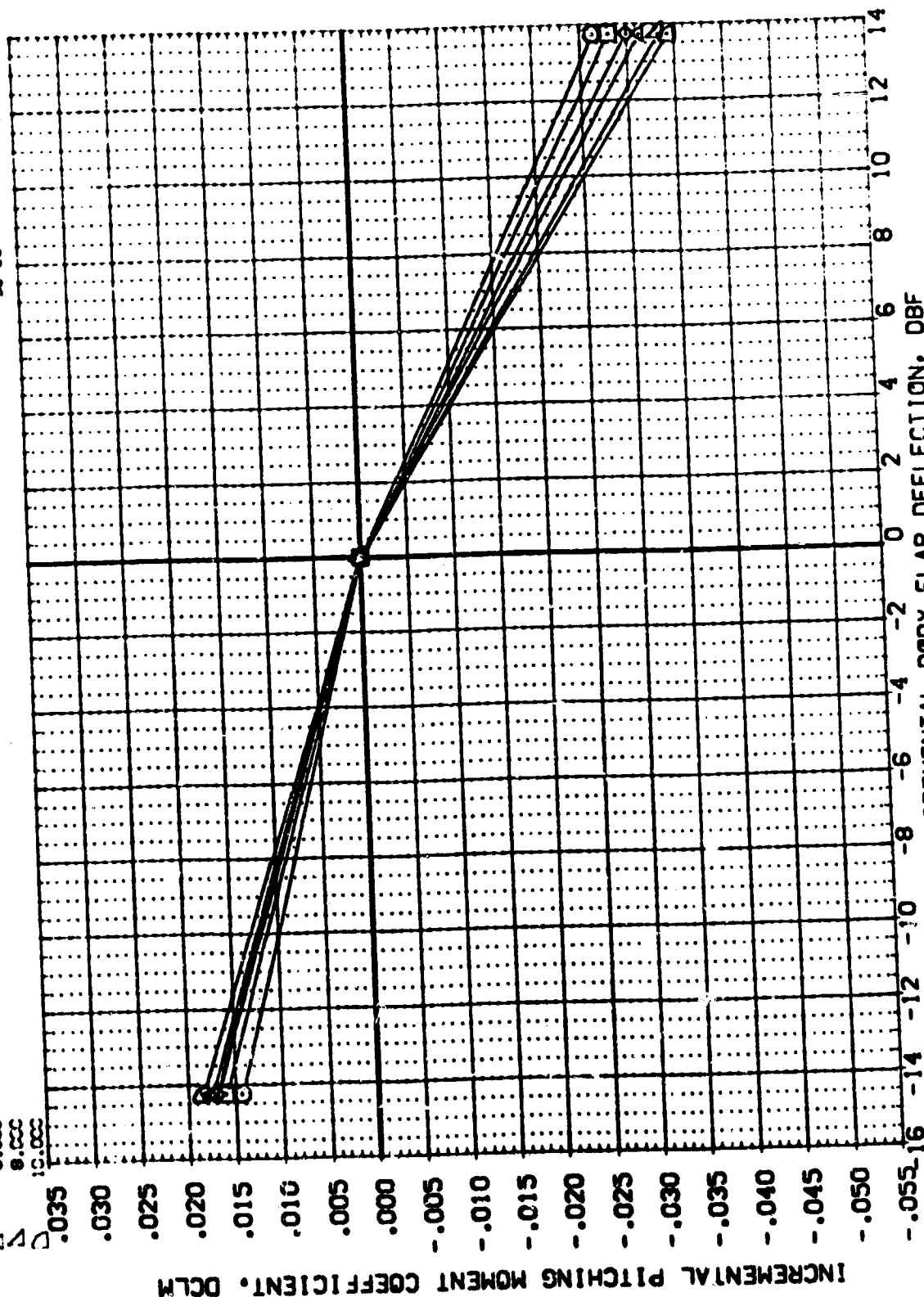


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 1398 WITH ALT. NOSE
 PAGE 126:

WCEC 574 (QA48) CR3 :393 W/ALT NOSE

AC: VANDAN: 3DN3B3J3E

[illegible]

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DATA SET 1
L87C31

DATA SOURCE
JFK
114-750

DATASET

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DATE: 10/10/2001

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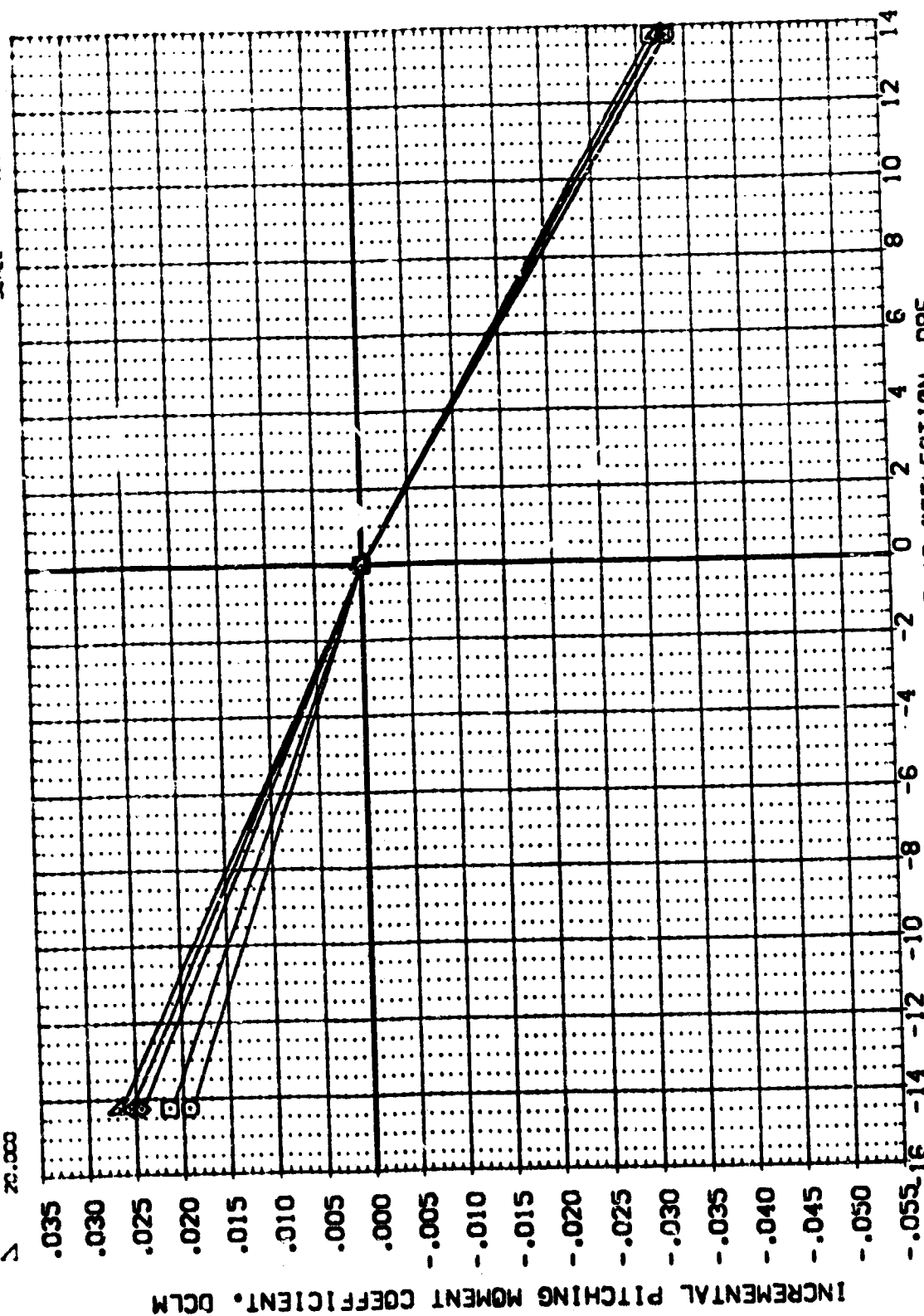
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055.16 -14 -12 -10 -8 -6 -4 -2 0 2 4
INCREMENTAL BODY FLAP DEFLECTION, DBF

FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 1398 WITH ALT. NOSE

PAGE 1262



(L87044)

MSFC 574(CA48) ORB 1398 W/ALT NOSE

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	MACH	DBF	DBF	SRF	SCF
.000	1.950	.000	L87031	7690.0000	7690.0000
2.000	.000	.000	L87041	474.8000	474.8000
4.000	.000	.000	L87046	936.7000	936.7000
6.000	999.990	-14.250		836.7000	836.7000
8.000		13.750		.0000	.0000
10.000				.0000	.0000
				7400	7400
				SCALE	SCALE

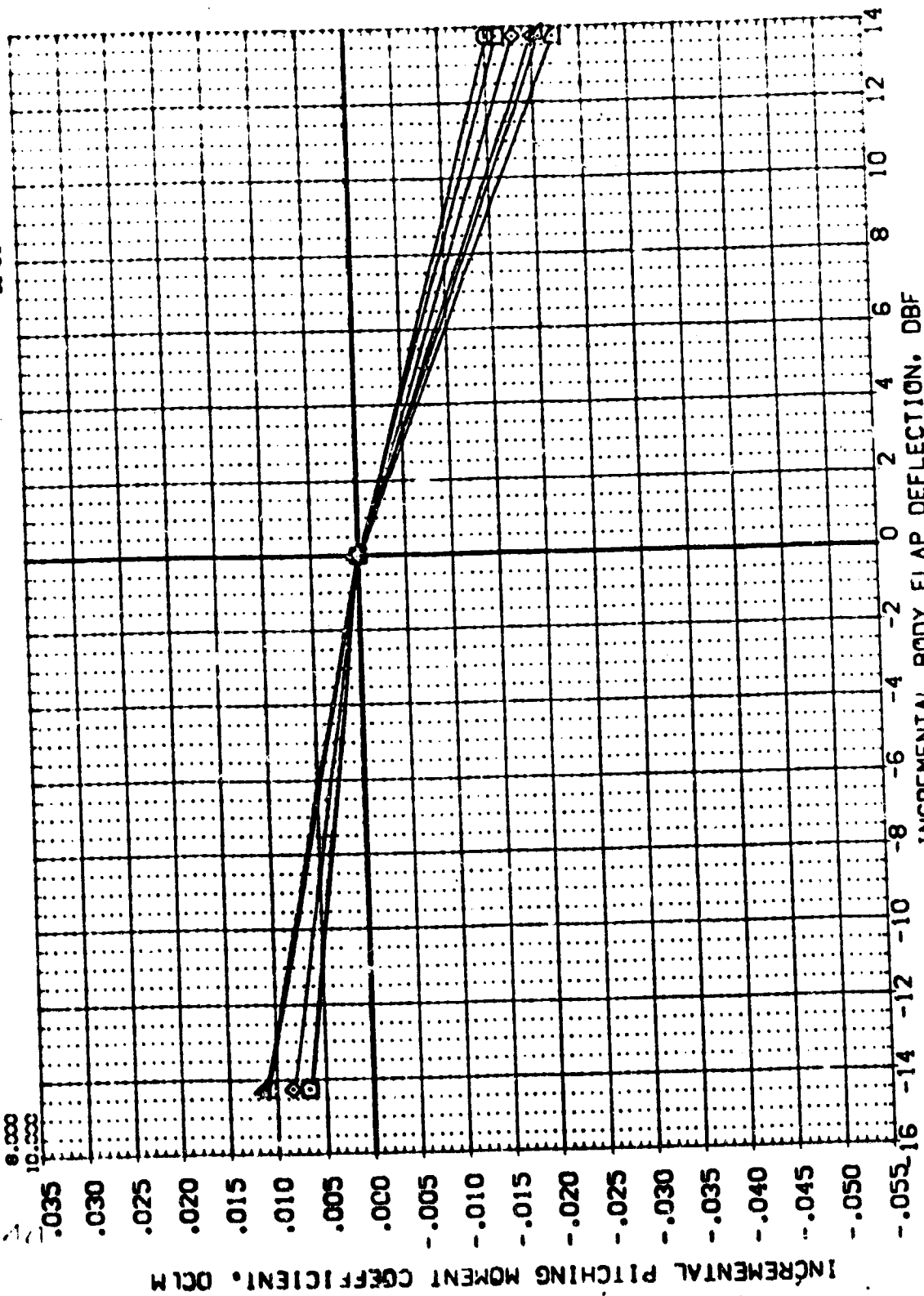


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 1398 WITH ALT. NOSE

(L87044)

WSFC 574(0A48) ORB 139B W/ALT NOSE

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DBF	DBF	REFERENCE INFORMATION
1	12.000	1.960	BETA	DATA	DBF	DBF	7600.0000
2	14.000	1.960	BETA	DATA	DBF	DBF	474.8000
3	16.000	1.960	BETA	DATA	DBF	DBF	936.0000
4	18.000	1.960	BETA	DATA	DBF	DBF	838.0000
5	20.000	1.960	BETA	DATA	DBF	DBF	1000.0000
6	22.000	1.960	BETA	DATA	DBF	DBF	1000.0000
7	24.000	1.960	BETA	DATA	DBF	DBF	1000.0000
8	26.000	1.960	BETA	DATA	DBF	DBF	1000.0000
9	28.000	1.960	BETA	DATA	DBF	DBF	1000.0000
10	30.000	1.960	BETA	DATA	DBF	DBF	1000.0000

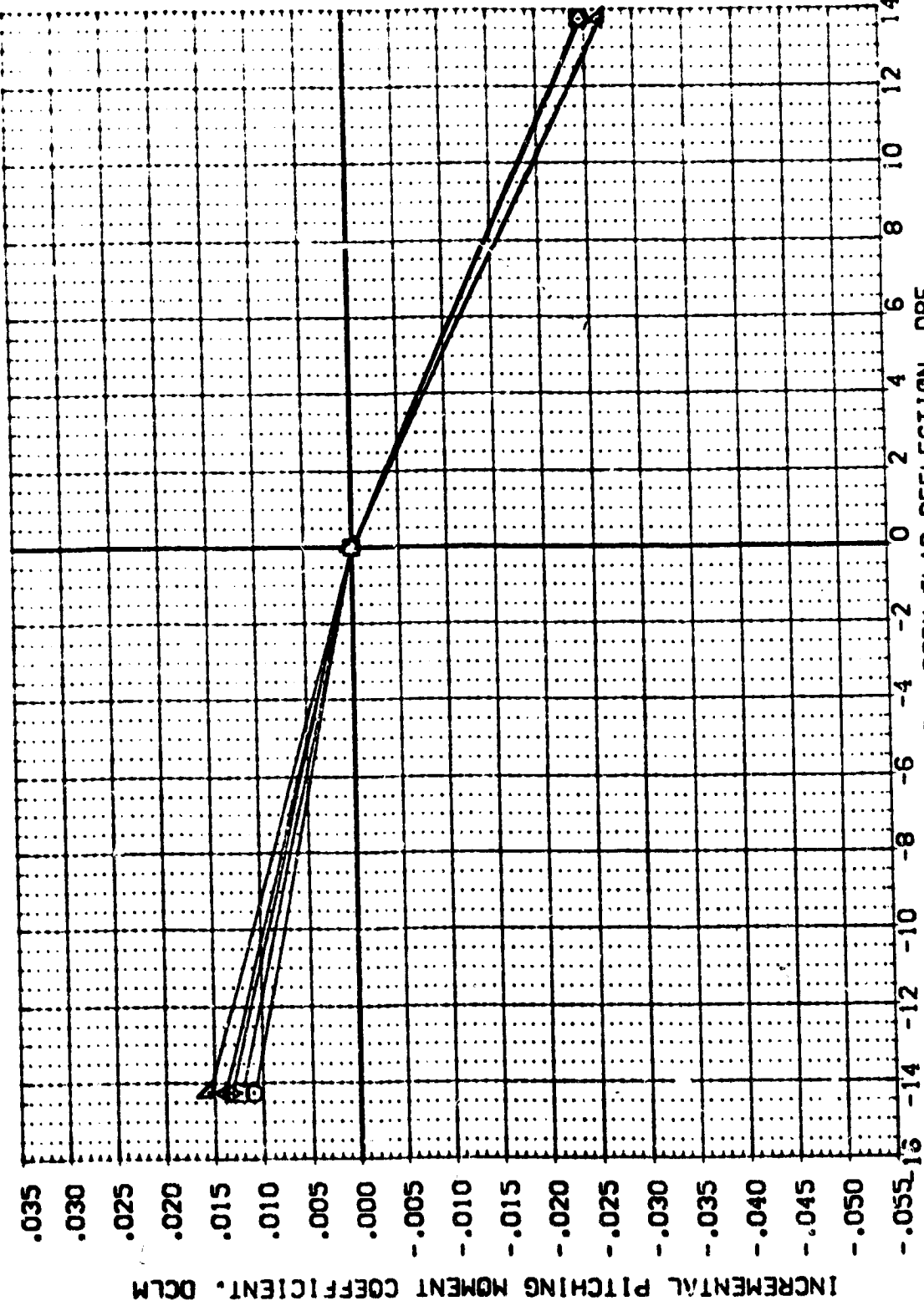


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

(L87044)

VSFC 574(0A48) ORB 139B W/ALT NOSE

REFERENCE IN DATA 139B

SREF 2690.0000
LREF 474.8000
BREF 936.7000
XREF 838.0000
YREF 0.0000
ZREF 0.0000
SCALE 0.0040

DATA SOURCE
DSF -14.250
13.750

DATASET
L87044
L87046

PARAMETRIC VALUES
MACH 2.990
ELEVTR 0.000
SPDRK 999.990
BETA 0.000
AILRON 0.000

SYMC ALPHA
0.000
2.000
4.000
6.000
8.000
10.000

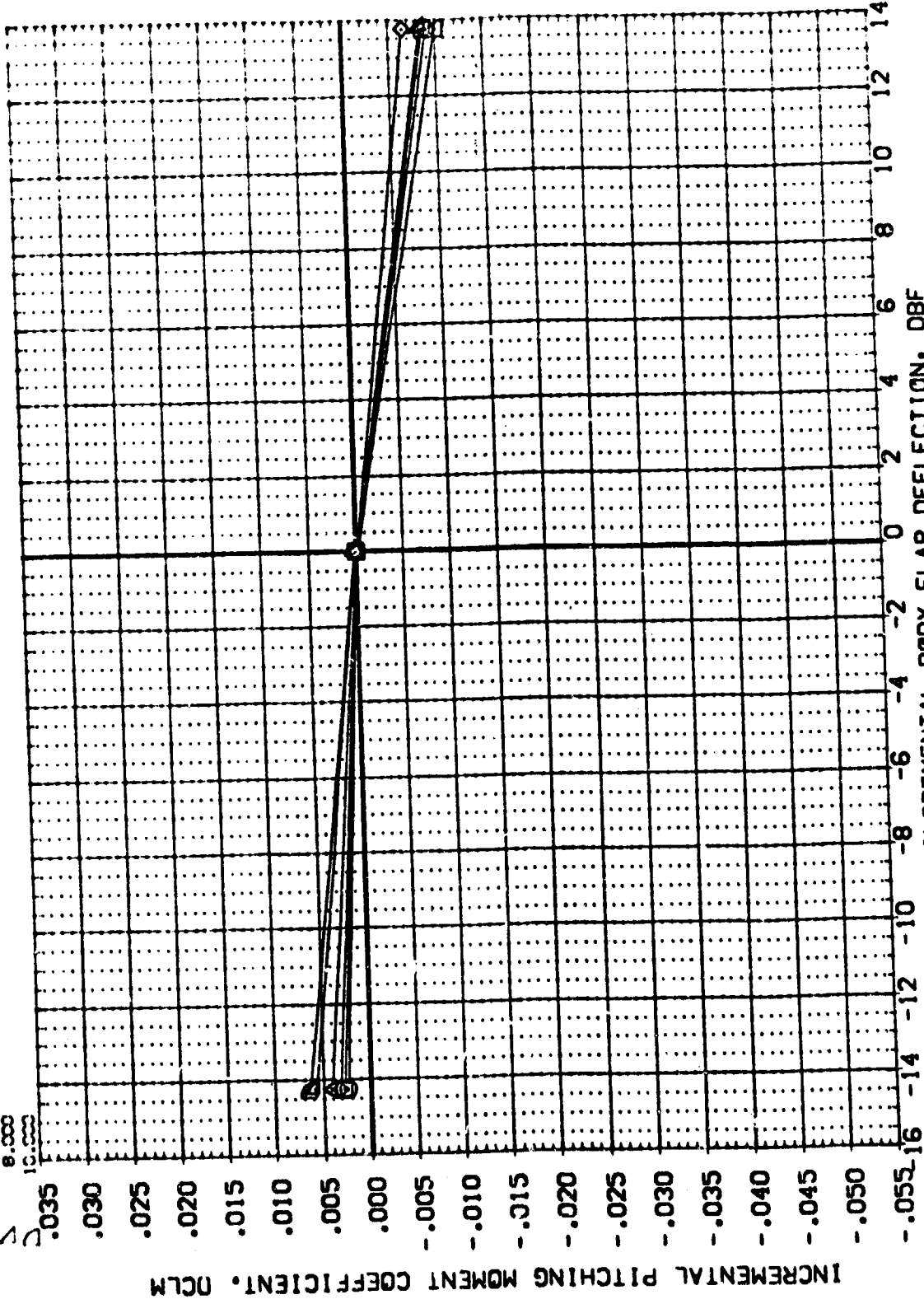


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

(L87044)

VSFC 57410A4 CRB :393 W/ALT NOSE

SYNOPSIS	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
12.000	2.990	BETA	.000 DATASET DBF	REF	2690.0000
14.000	.000	ALTITUDE	.000 L87044	REF	174.8000
16.000	999.990		-14.250	REF	936.0000
18.000			13.750	X-REF	838.0000
20.000				Y-REF	0.0000
				Z-REF	0.0000
				SCALE	0.0040

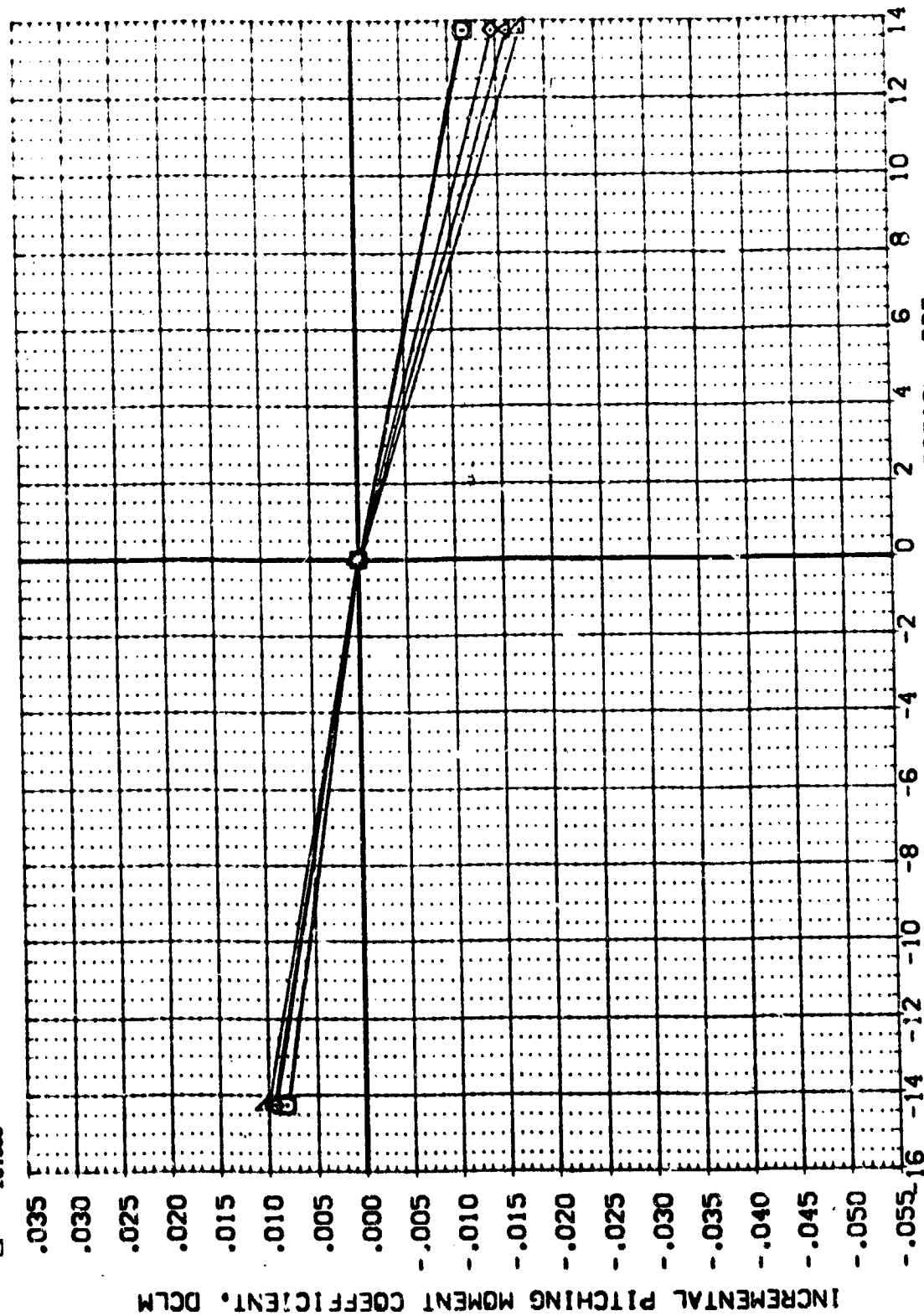


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 1398 WITH ALT. NOSE

(L87044)

VSC 574(CA48) CR3 139B W/ALT NOSE

SYMBOL	ALPHA	MACH	ELEVTR	SPOGRM	PARAMETRIC VALUES	DATA SOURCE	DATASET	DBF	REFERENCE INFORMATION
○	.000	4.560	BETA	.000	DATASET	DBF	.000	SREF	2690.0000
□	2.000	.000	ALLRON	.000	L87044	DBF	-14.250	ENF	474.8000
△	4.000	.000	999.99C	.000	L87046	DBF	13.750	BNF	936.7000
▽	6.000	.000		.000				ANF	838.7000
◇	8.000	.000		.000				YMP	.0000
○	10.000	.000		.000				ZMP	.0000
								SCALE	.0010

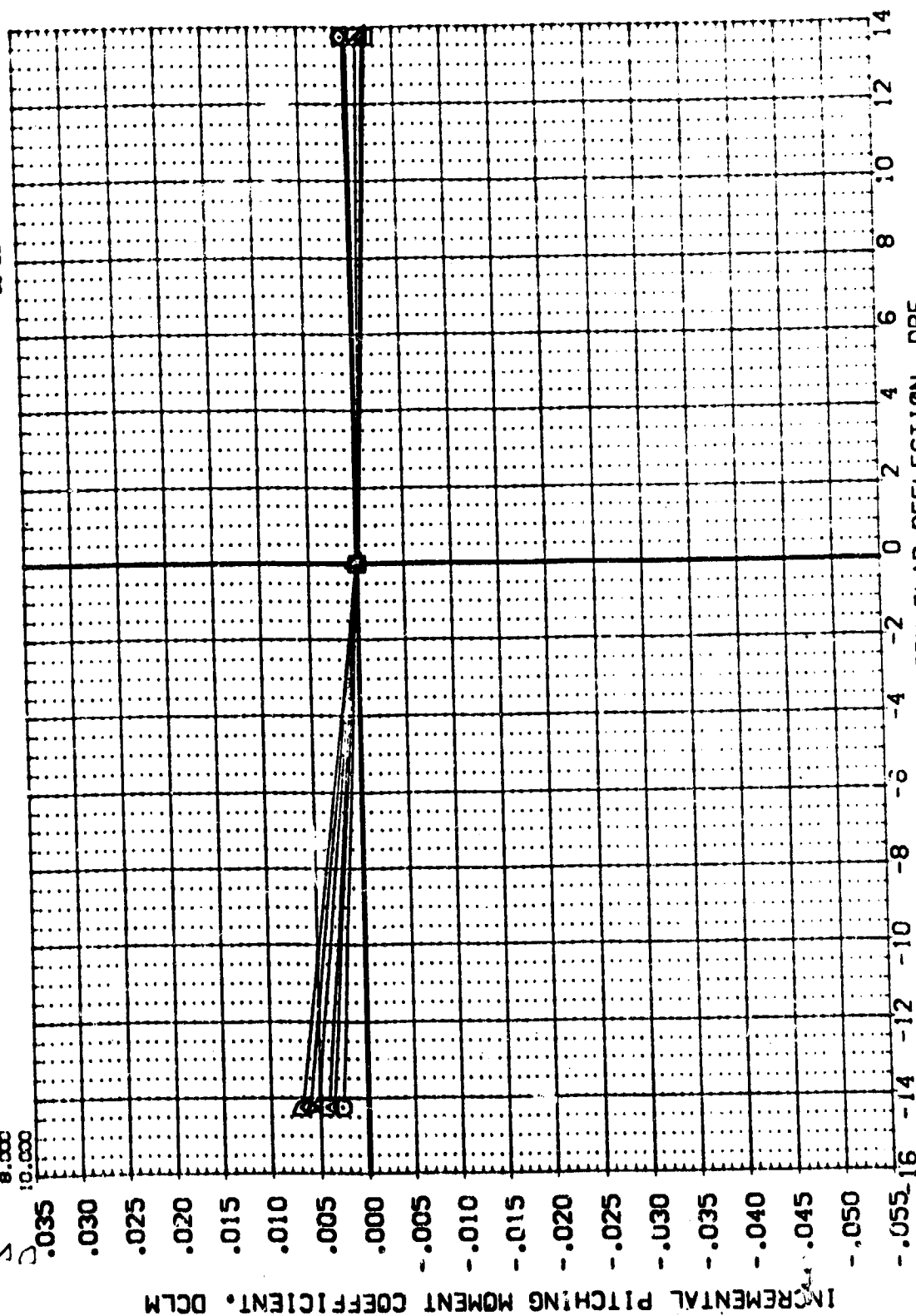


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

MSEC 574(0A48) ORB 139B W/ALT NOSE

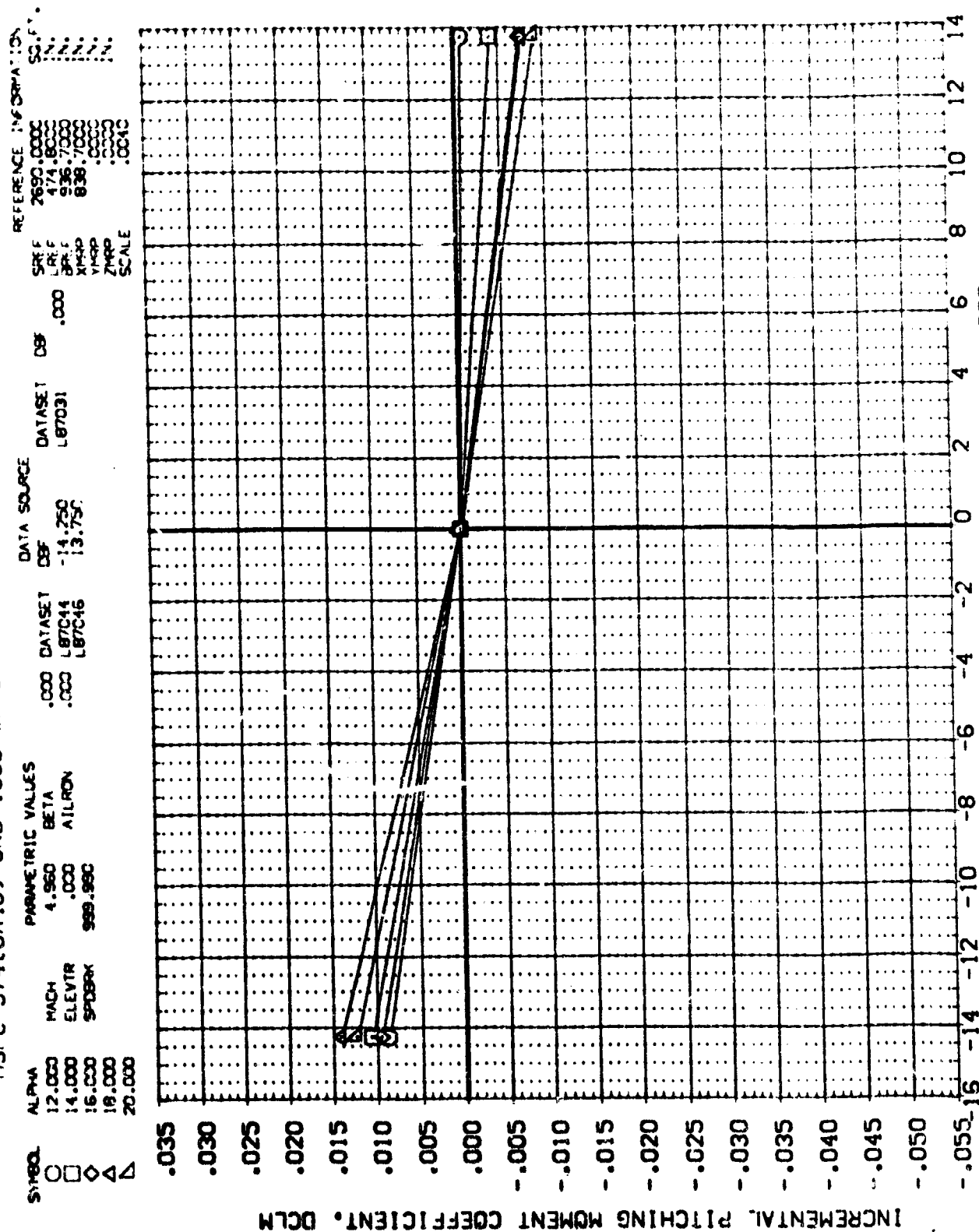


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 1398 WITH ALT. NOSE

(L87045)

MSFC 574(0A48) CRB 1398 W/ALT NOSE

PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION	
SYMBOL	ALPHA	MACH	BETA	DBF	DBF	SREF	SC.F.
0.00	20.000	2.950	.000	.000	L87032	2690.0000	2.222222
0.01	22.000	.000	AILRON	-14.250		474.8000	
0.02	24.000	999.950		13.750		936.7000	
0.03	26.000					838.7000	
0.04	28.000					.0000	
0.05	30.000					ZHPP	
						SCALE	

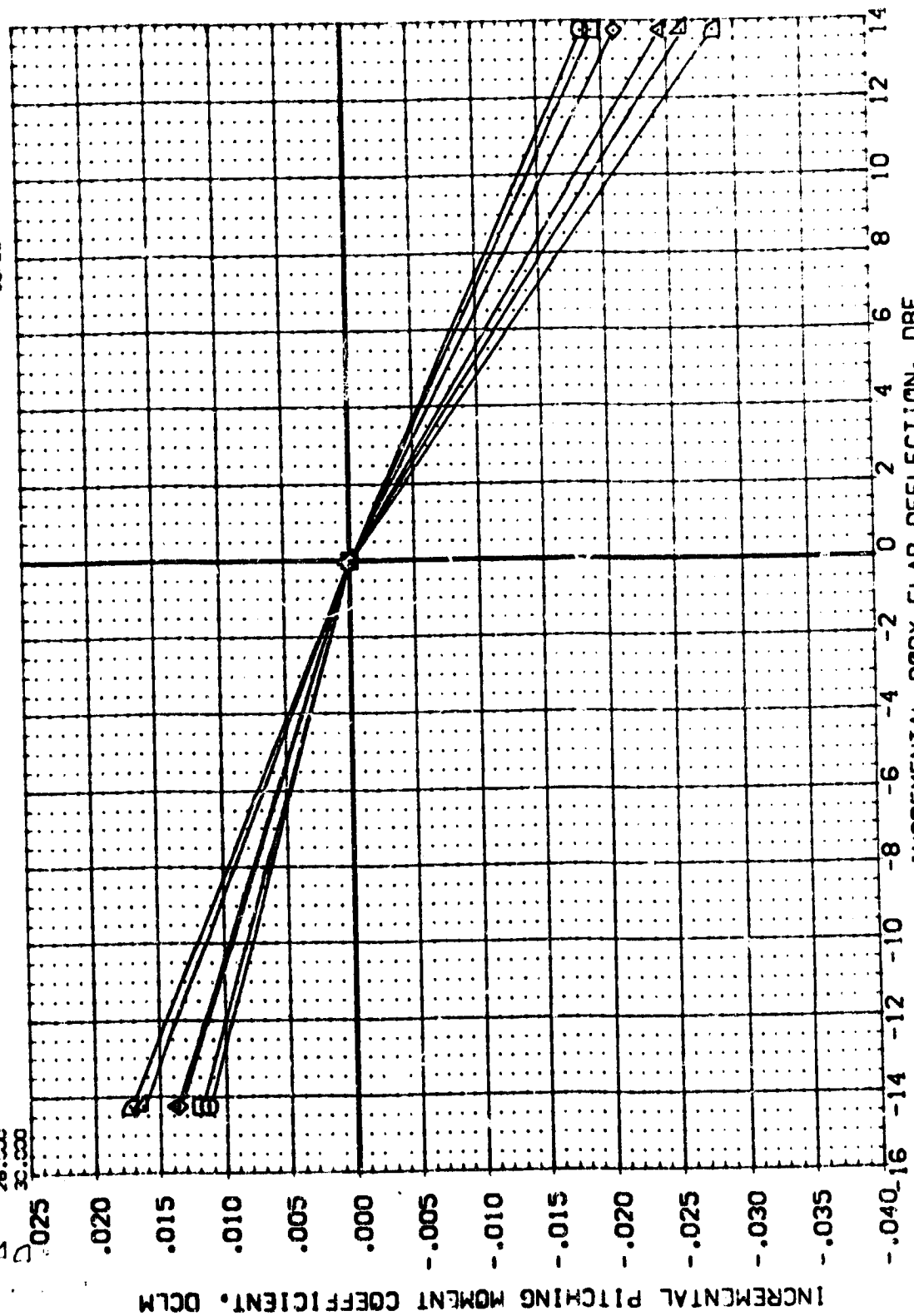


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 1398 WITH ALT. NOSE

MSFC 574(0A48) ORB 1398 W/ALT NCSE

(L87045)

SYMBOL	ALPHA	MACH	ELEVTR	SPDRK	909.990	PARAMETRIC VALUES	.000	DATASET	DBF	-14.250	13.750	DATA SOURCE	DBF	.000	L87032	SREF	7690.0000	REFERENCE INFORMATION
	32.000					BETA	.000									LREF	474.8000	SCALE
	34.000					ALLRON	.000									BREF	936.7000	
	36.000															XREF	838.0000	
	38.000															YREF	.0000	
	40.000															ZREF	.0000	
																SCALE	.0040	

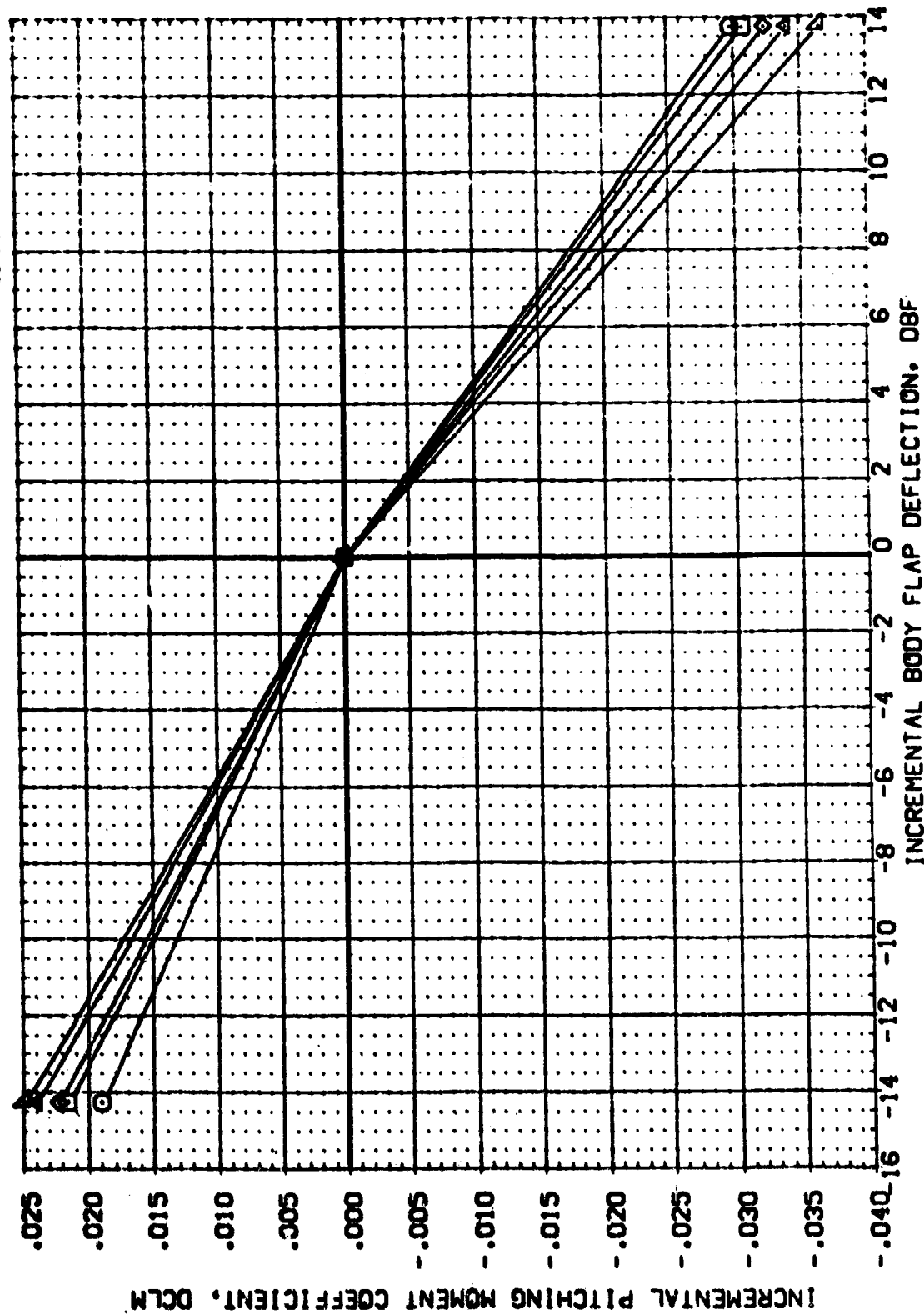


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 1398 WITH ALT. NOSE

MSFC 574(0A48) ORB 1398 W/ALT NCSE

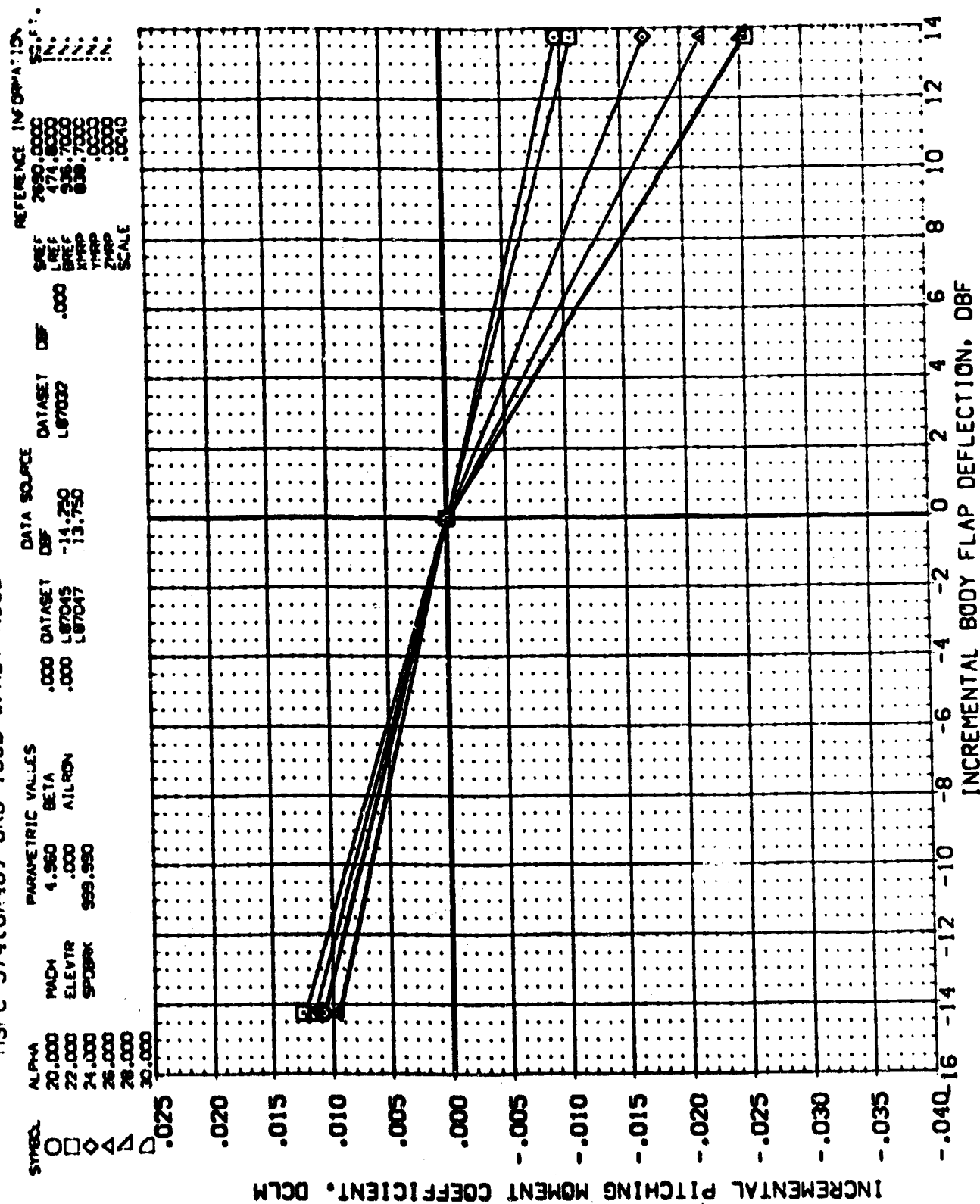


FIG. 35 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139B WITH ALT. NOSE

VSFC 574:CA48: CR3 :393 W/AL: NCSE

REFERENCE IN COPY IS:

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474	0000
938	0000
938	0000
0000	0000
0000	0000
0000	0000

22-1111

22-1111

DATA SOURCE	DATASET	CB	000	SREF
DB	L87032			MI
				BR:
				XREP
				VREP
				ZREP
				SICAL

W/AL : INUSE
 .000 DATE: 187045
 .000 187047

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148: CR3 :393
PARAM'RIC VALUES
4.950 BETA
.000 ALPHA
999.990

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ALPHA	MACH	ELEVTR	SPOBRK
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34.000			
36.000			
38.000			

5-80

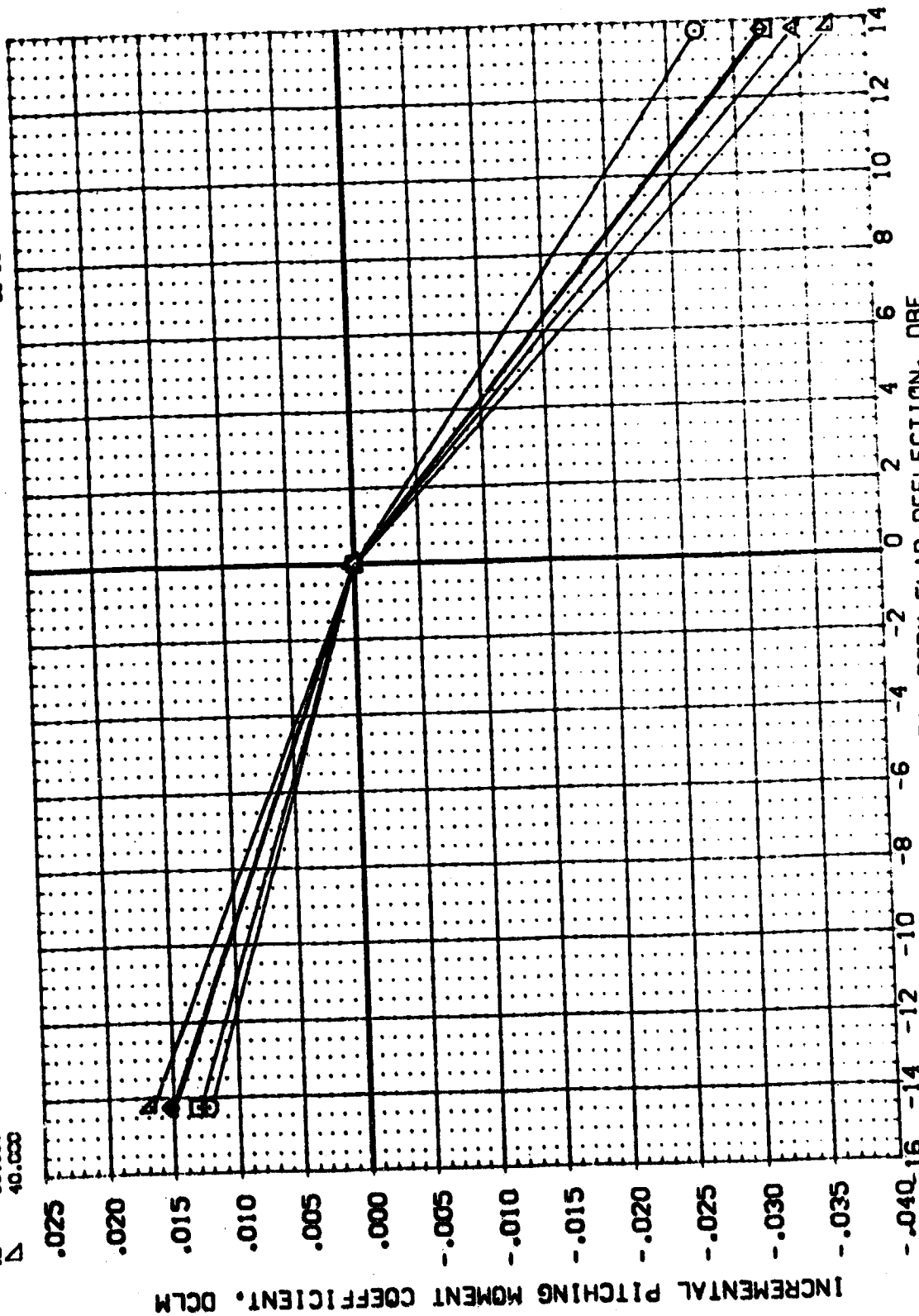


FIG. 35

WSFC 574(0A48) QRB 139

STARS

ALPHA
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14.000
16.000
18.000
20.000

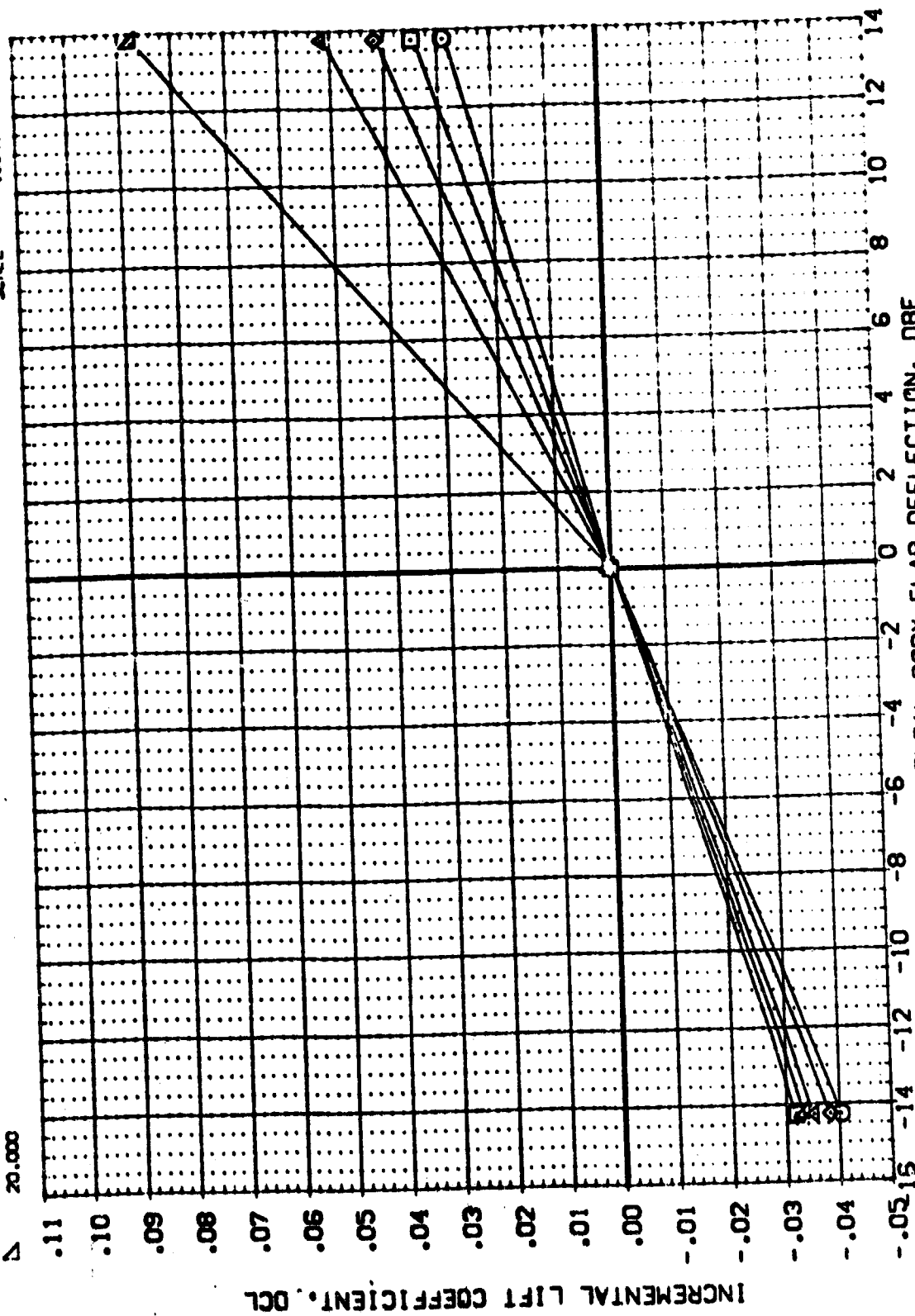
**MACH
ELEVTR
SPOBOK**

PARAMETRIC VALUES

	DATA SOURCE
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0000	-14.250
0000	13.750

DATESET DBF

	REFERENCE INFORMATION	SC.F.T.
SREF	2650.0000	
LREF	474.000C	
BREF	936.700C	
XREF	838.7000	
YREF	.000C	
ZREF	.000C	
SCALE	.0043	



0515 -14 -12 -10 -8 -6 -4 -2 0 2 4
INCREMENTAL BODY FLAP DEFLECTION, DBF

FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITAL 139

FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITAL 139

MSFC 574(0A48) ORB 139

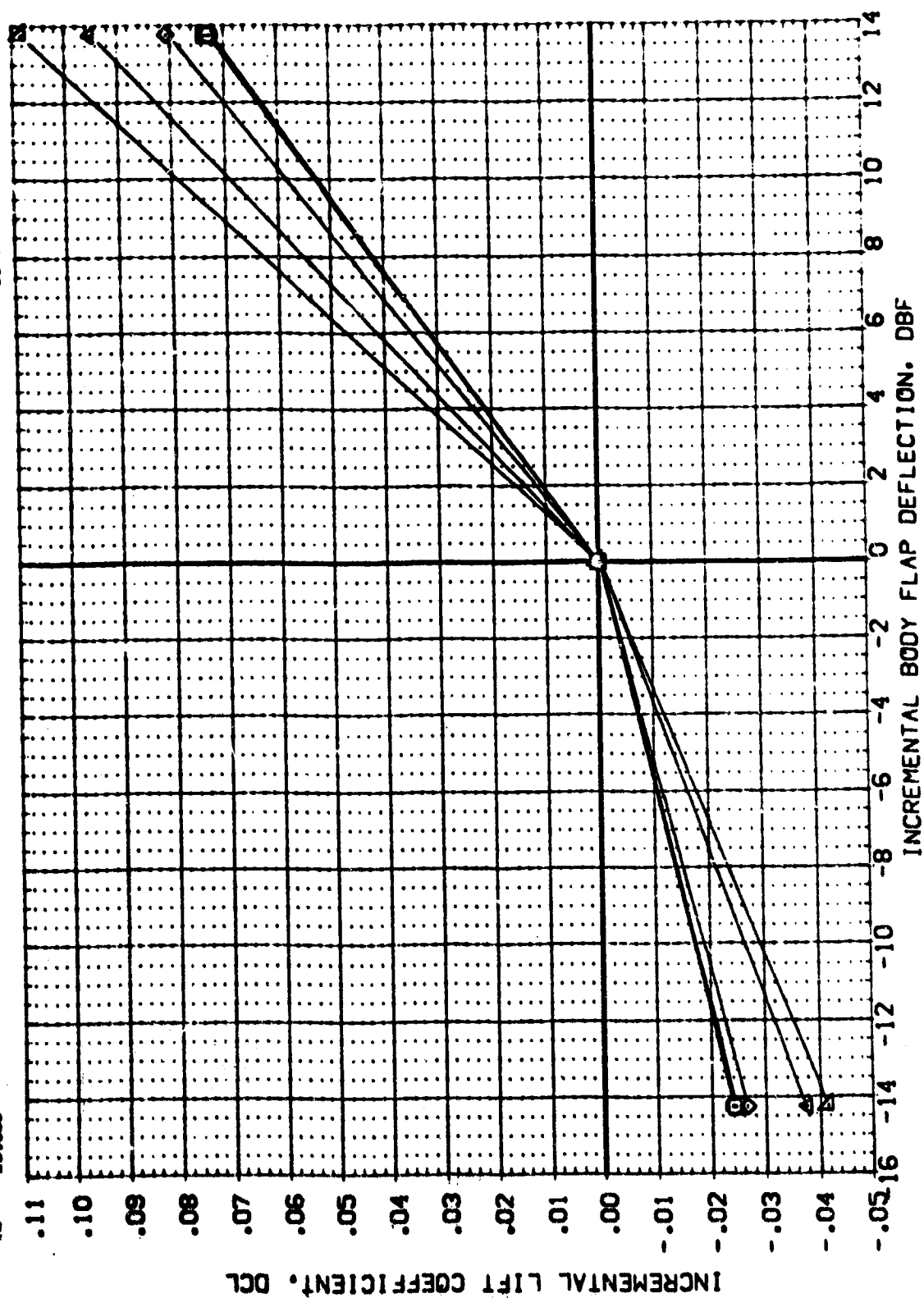
[illegible]

FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(L87058)

VSFC 574(CA48) ORB 139

REFERENCE INFORMATION
 SREF 2680.0000
 LREF 474.8000
 DBF 338.7000
 XREF 838.7000
 YREF .0000
 ZREF .0000
 SCALE .004C

DATA SOURCE
 DBF -14.250
 L87048 13.750

.000 DATASET
 .000 L87058
 .000 L87056

PARAMETRIC VALUES
 MACH 1.200 BETA
 ELEVTR .000 AIRRON
 SPD3RK 999.990

ALPHA
 .000
 2.000
 4.000
 6.000
 8.000
 10.000

SYMBOL
 ○
 □
 △
 ◇
 ○

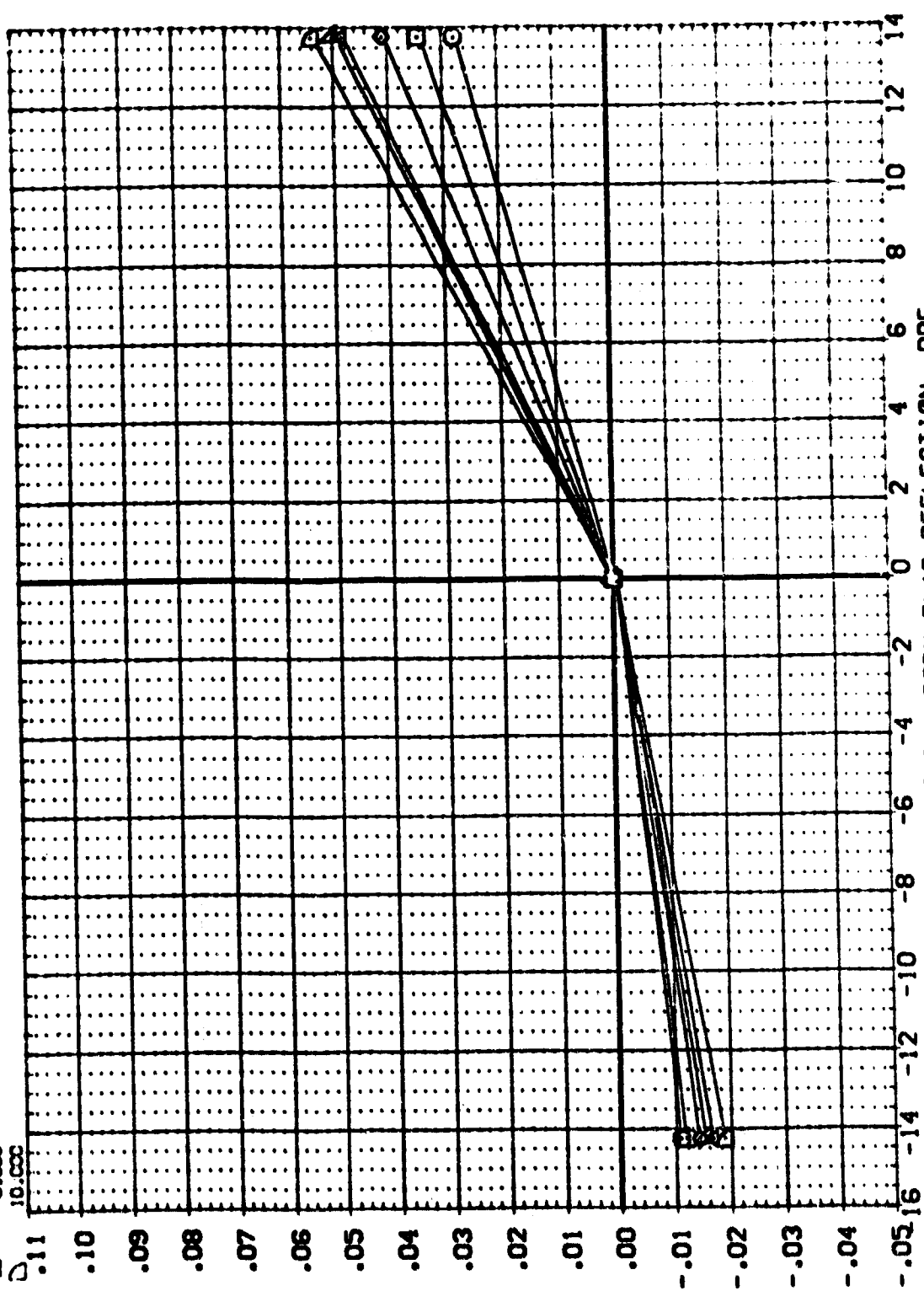


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

MSFC 574(0A48) ORB 139

(187058)

SYNCH	ALPHA	MACH	ELEVTR	SPOBRK	PARAMETRIC VALUES	DATA SOURCE	DATASET	DBF	DBF	REFERENCE INFORMATION
12.000	1.200	BETA								2690.0000
14.000	.000	ALLRON								474.8000
16.000	999.990									936.7000
18.000										836.7000
20.000										.0000
										.0000
										.0040
										SCALE

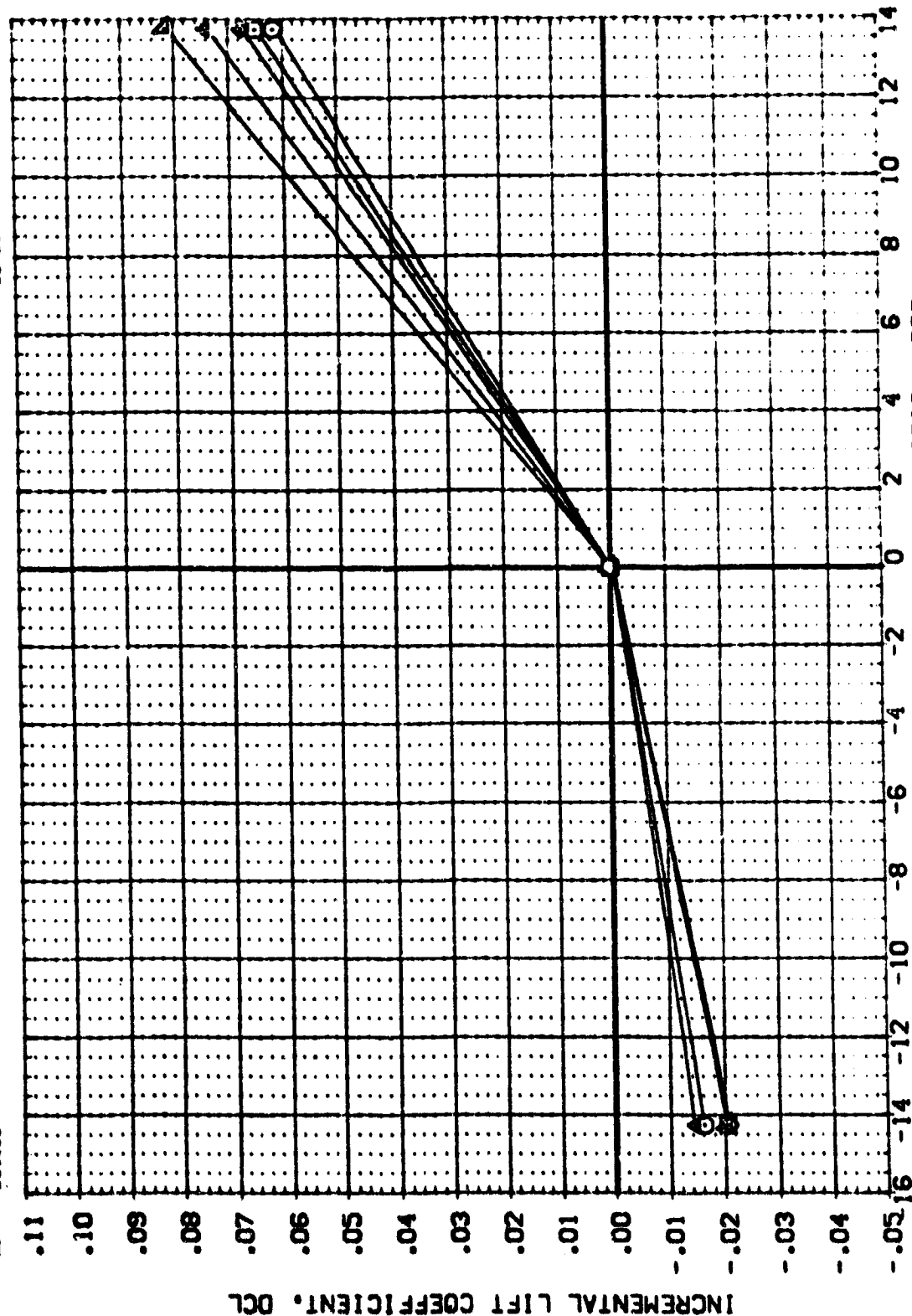


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

MSFC 574(0A48) DR3 139

REFERENCE IN SPANISH

DATE: 187048
CASE: 385

```

DATA:  CB
       L67058
       L67056
DATA SOURCE
       L67058
       L67056

```

7 0 0 1 0 0

METRIC VALUES	
BSC	BETA
000	ALLRON
000	
000	

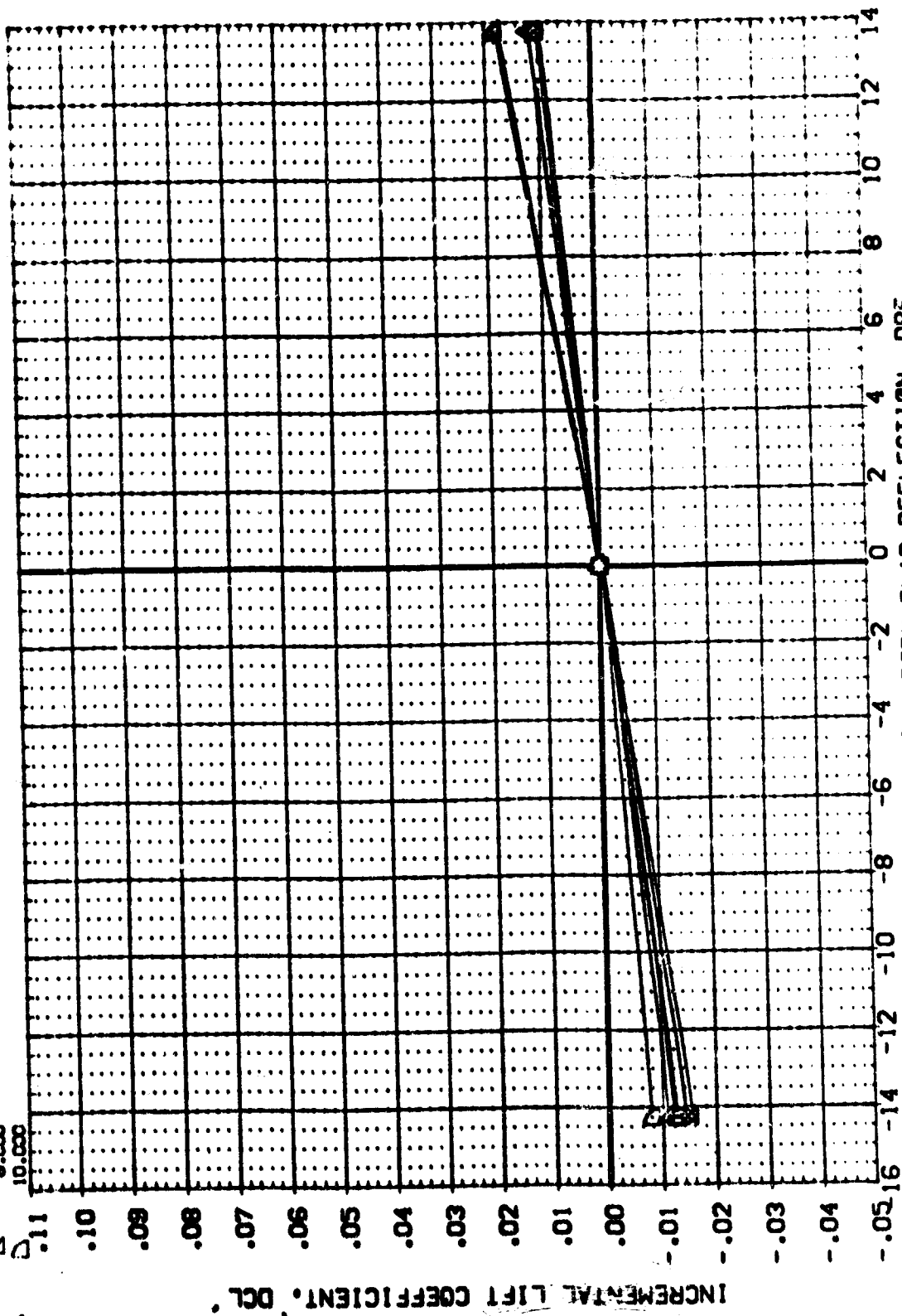


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(L87058)

MSFC 574(0A48) CR3 139

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	.000	DATASET	DBF	DATA SOURCE	DATASET	DBF	SREF	REFERENCE IN DATA 139
0.11	.000	2.950	BETA	.000	L87058	-14.250	L87048	.000	L87048	2650.0000	SCF
0.10	2.000	.000	AILRON	.000	L87056	13.750				474.8000	REF
0.09	4.000	999.990								936.7000	REF
0.08	6.000									838.7000	REF
0.07	8.000									.0000	REF
0.06	10.000									.0000	REF
0.05										.0000	REF
0.04										.0000	REF
0.03										.0000	REF
0.02										.0000	REF
0.01										.0000	REF
0.00										.0000	REF
-0.01										.0000	REF
-0.02										.0000	REF
-0.03										.0000	REF
-0.04										.0000	REF
-0.05										.0000	REF

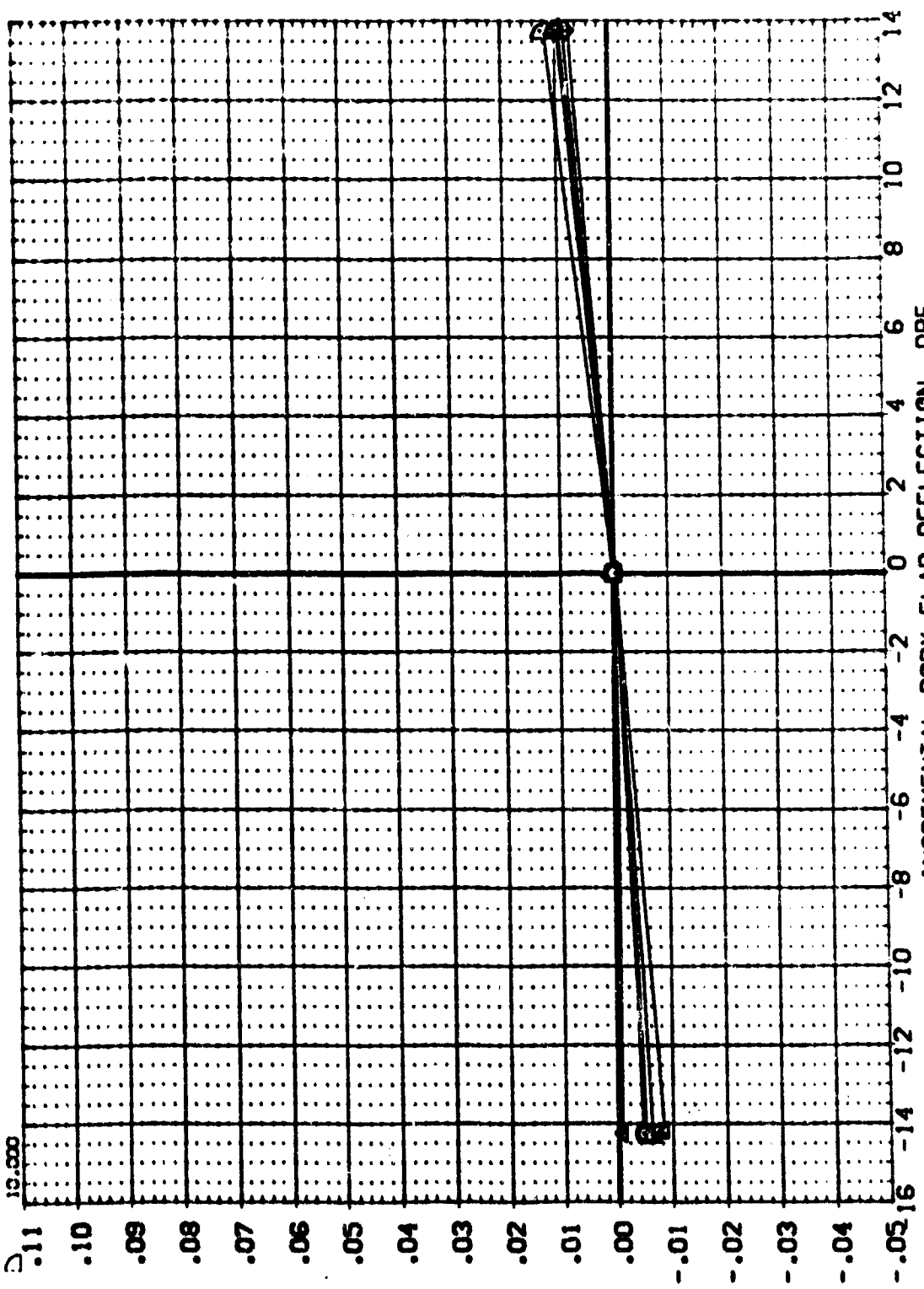


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

VSFC 574(CA48) ORB 139

REFERENCE INFORMATION

DATESET DBF
L007040 .000
3 2 7 4 1 9 5

DATA SOURCE
DB
-14.250
13.750

1,000 DATASET
1,000 L87058
L87056

PARAMETRIC VALUES

2.990	BETA
.000	ALPHA
999.990	

**MACH
ELEVTR
SPOON**

ALPHA
12.000
14.000
16.000
18.000
20.000

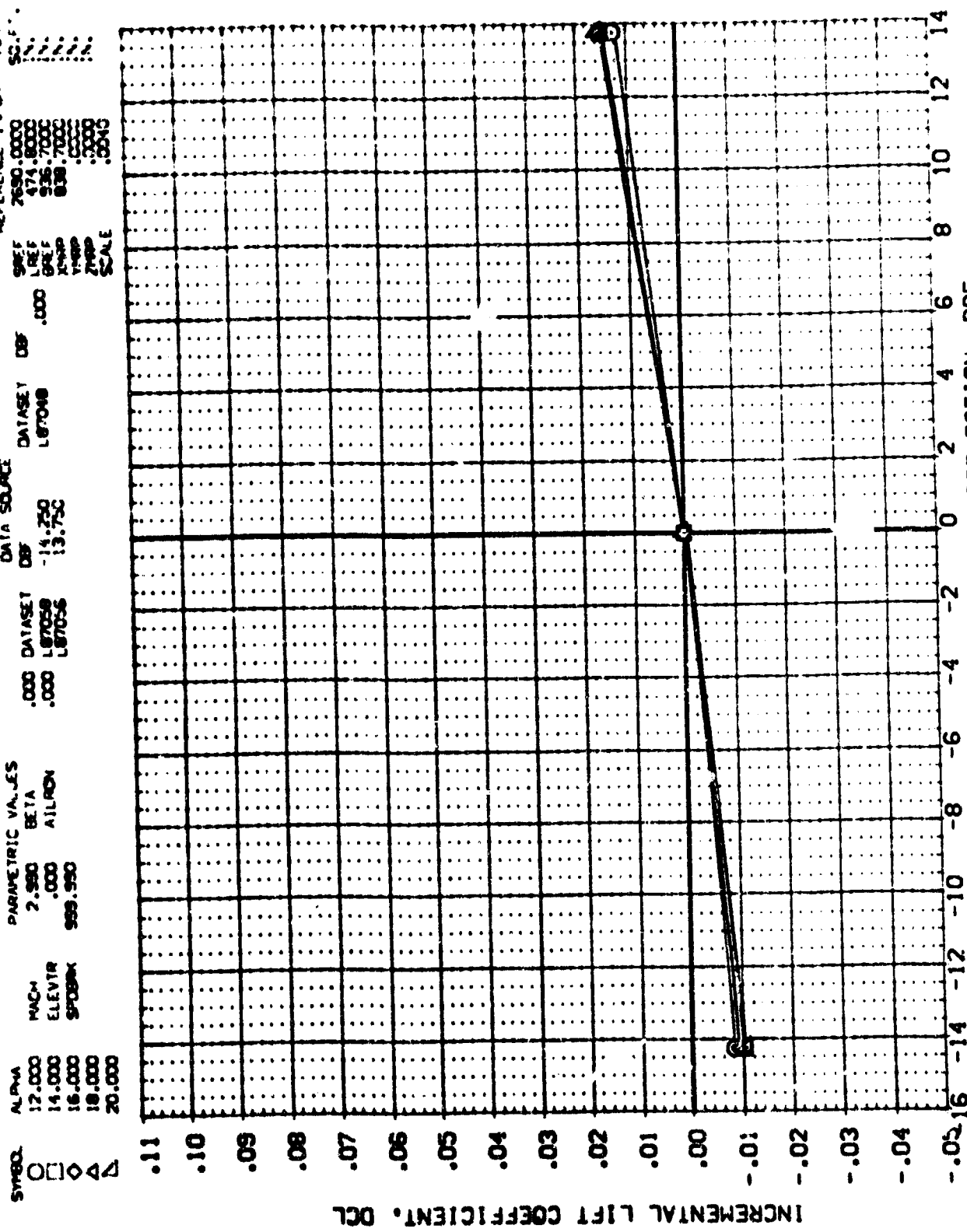


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

WSFC 574(CA48) CR3 139
 (187058)

ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
.000	MACH	DBF	SREF
2.000	ELEVTR	.000	LRFL
4.000	SPDRK	.07040	DRFL
6.000		-14.250	XPRP
8.000		13.750	YPRP
			ZPRP
			SCALE
			SCALD

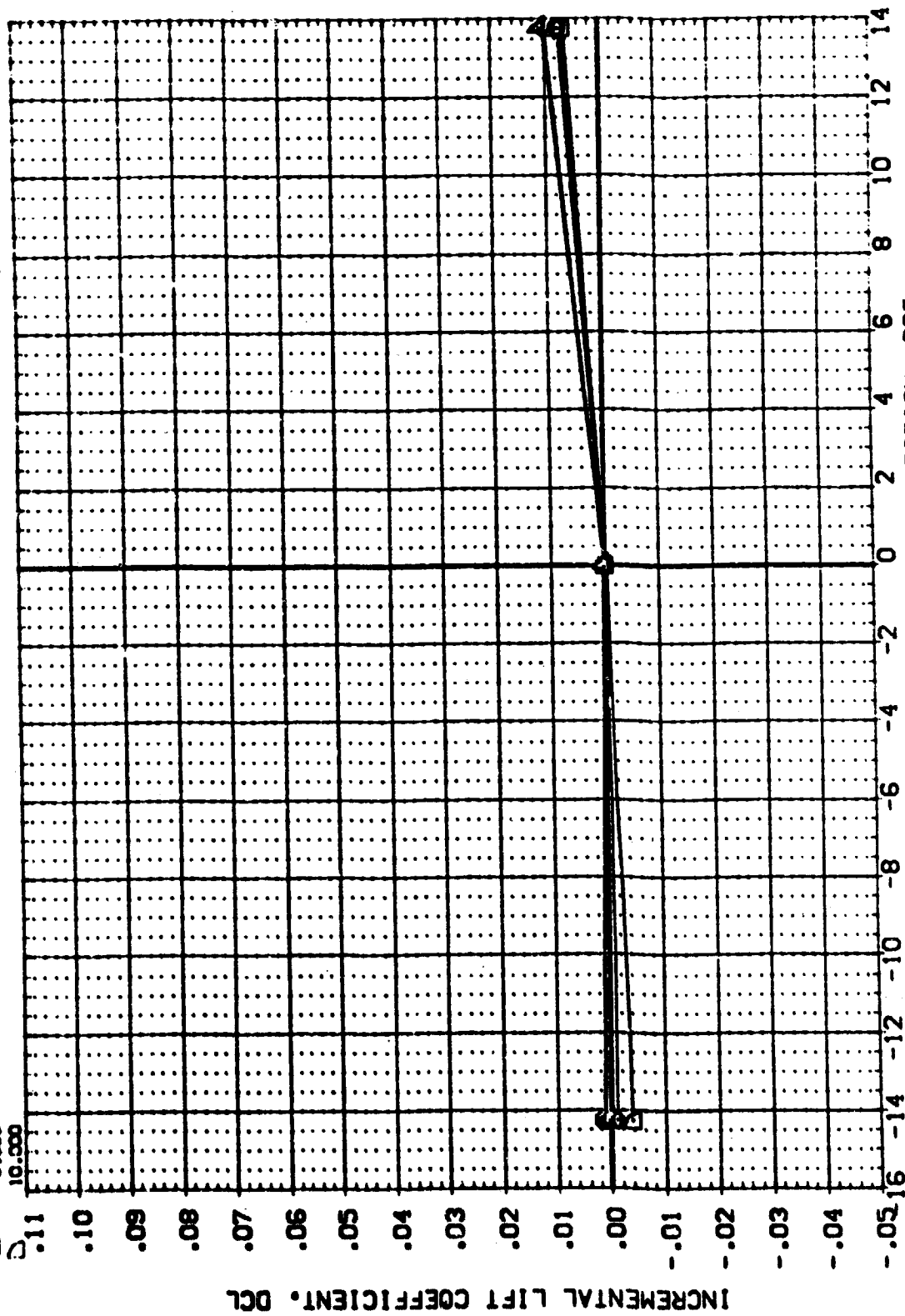


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139
 INCREMENTAL BODY FLAP DEFLECTION, DBF

MS-C 574(CA48) DB :39

SYMBOL	ALPHA	PARAMETRIC VALUES		DATA SOURCE		REFERENCE IN SYMBOL	
		MACH	BETA	DBF	DATASET	DBF	
000	:2.000		4.950	.000	DATASET	DBF	SPR
000	:4.000	ELEVTR	.000	.000	L87058		PR
000	:6.000			.000	L87058		BR
000	:8.000	SPDBRK	999.990	.000	L87058		XPR
000	:10.000			.000			YPR
000	:12.000			.000			ZPR
000	:14.000			.000			SCALE
000	:16.000			.000			
000	:18.000			.000			
000	:20.000			.000			

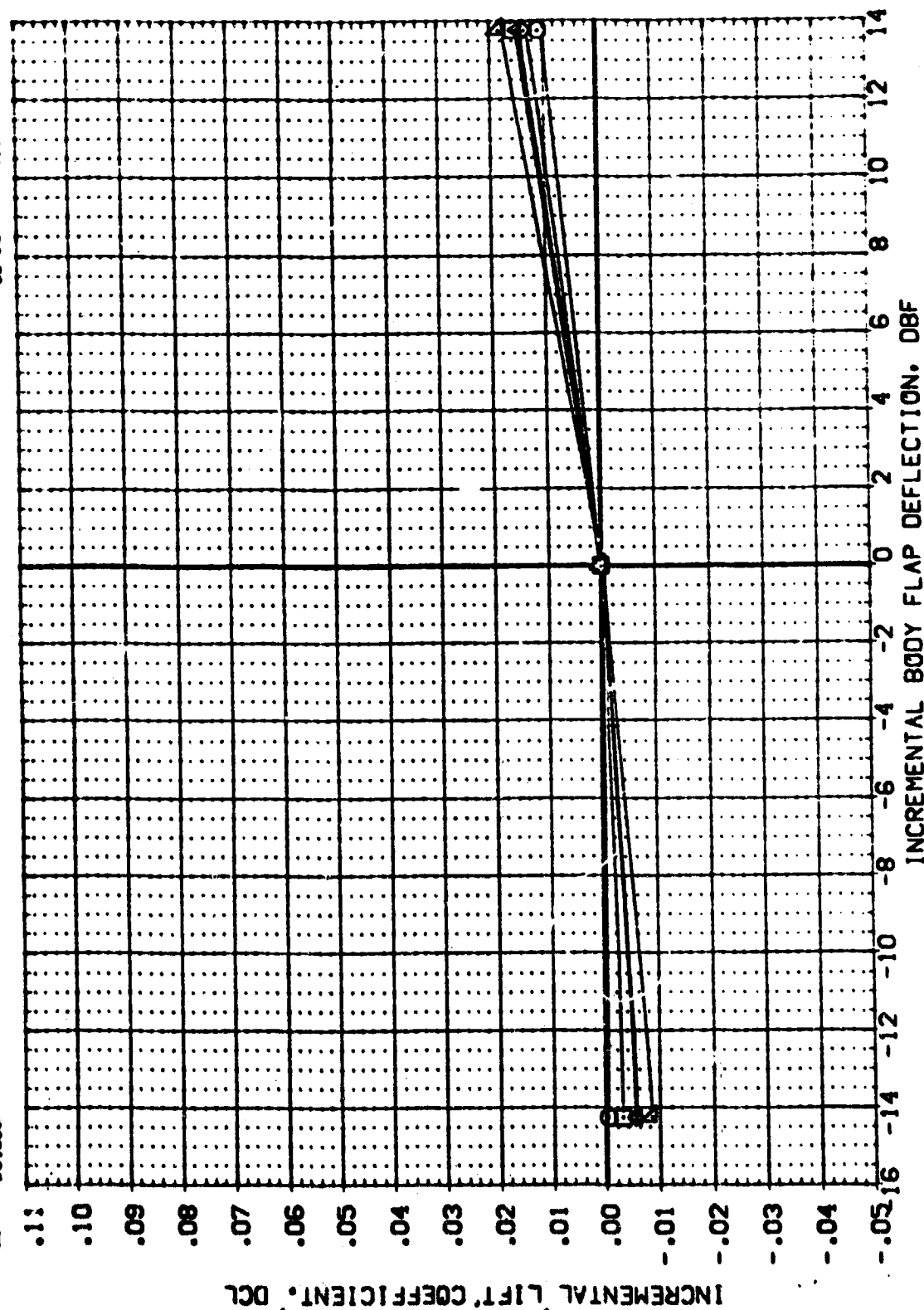


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(L87059)

MSFC 574(0A48) ORB :39

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATA SET	DBF	SRIF	REFERENCE INFORMATION
010	20.000	2.950	BETA	.000	L87059	-14.250	LREF	2690.0000
010	22.000	.000	AILRON	.000	L87057	13.750	BRF	474.8000
010	24.000	999.990					BRF	936.7000
010	26.000						YMRP	838.7000
010	28.000						YMRP	.0000
010	30.000						SCALE	.0010
010								SC.FT.

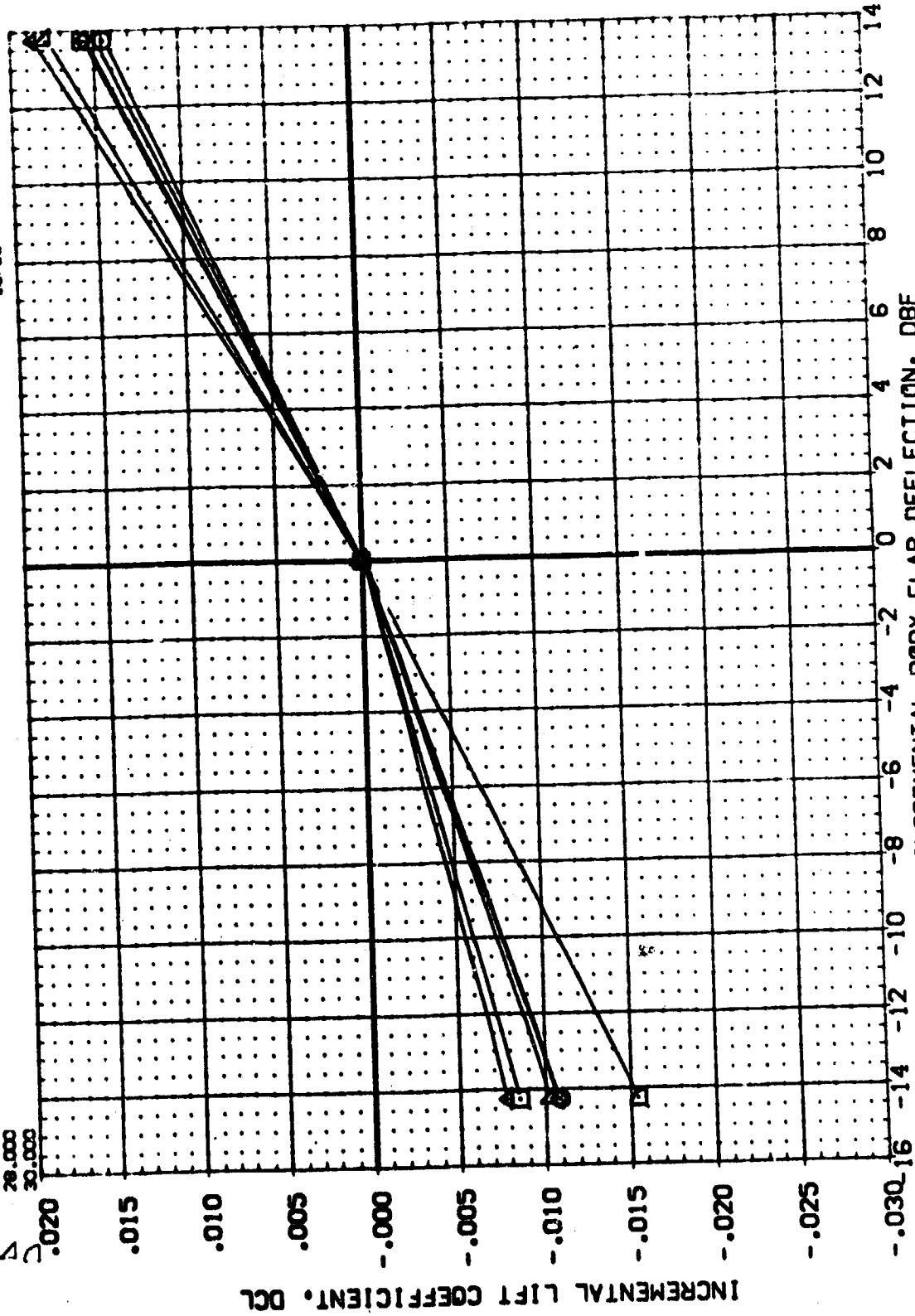


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(187059)

MSFC 574(0A48) ORB 139

SYMBOL	ALPHA	MACH	ELEVTR	SPOBRK	PARAMETRIC VALUES	.000	DATASET	DBF	-14.250	DATA SOURCE	DBF	187049	DBF	.000	SREF	269C.0000	REFERENCE INFORMATION
	32.000				BETA	.000	187059								LREF	474.8000	
	34.000				AIRCON	.000	187057								BRF	936.7000	
	36.000					999.990									YREF	838.7000	
	38.000														ZREF	.0000	
	40.000														SCALE	.0040	

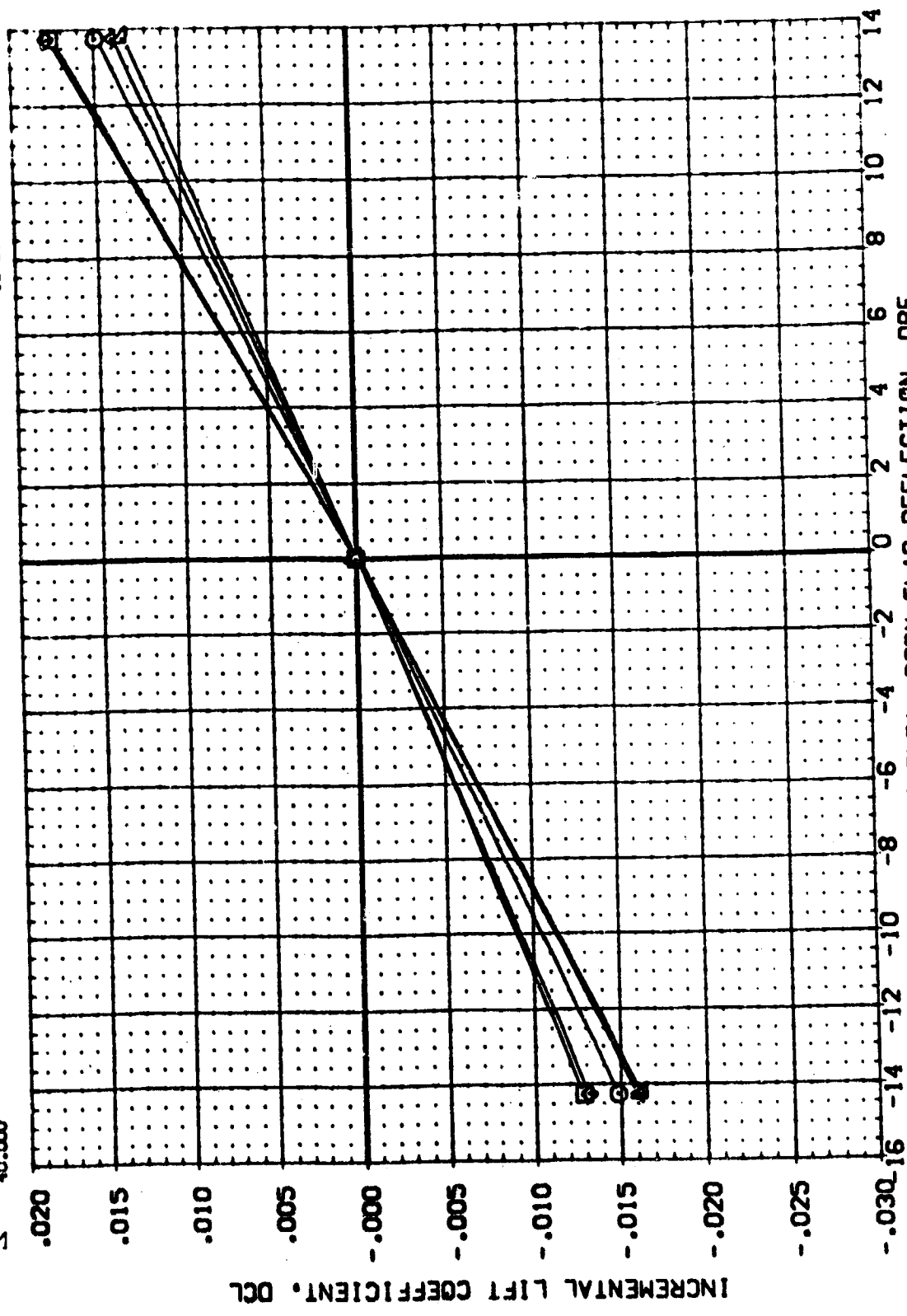


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(L87059)

MSFC 574(CA48) ORB 139

SYMBOL

ALPHA
20.000
22.000
24.000
26.000
28.000
30.000

MACH
ELEVTR
SPDRK

PARAMETRIC VALUES
1.960 BETA
.000 AILREN
999.99C

.000 DATASET
.000 L87059
.000 L87057

DATA SOURCE
DBF
-14.250
13.750

DATASET DBF
L87049 .000

SRF
LREF
XREF
YREF
SCALE

REFERENCE INFORMATION
269C.0000
474.8000
936.7000
838.7000
0000
0000
0040

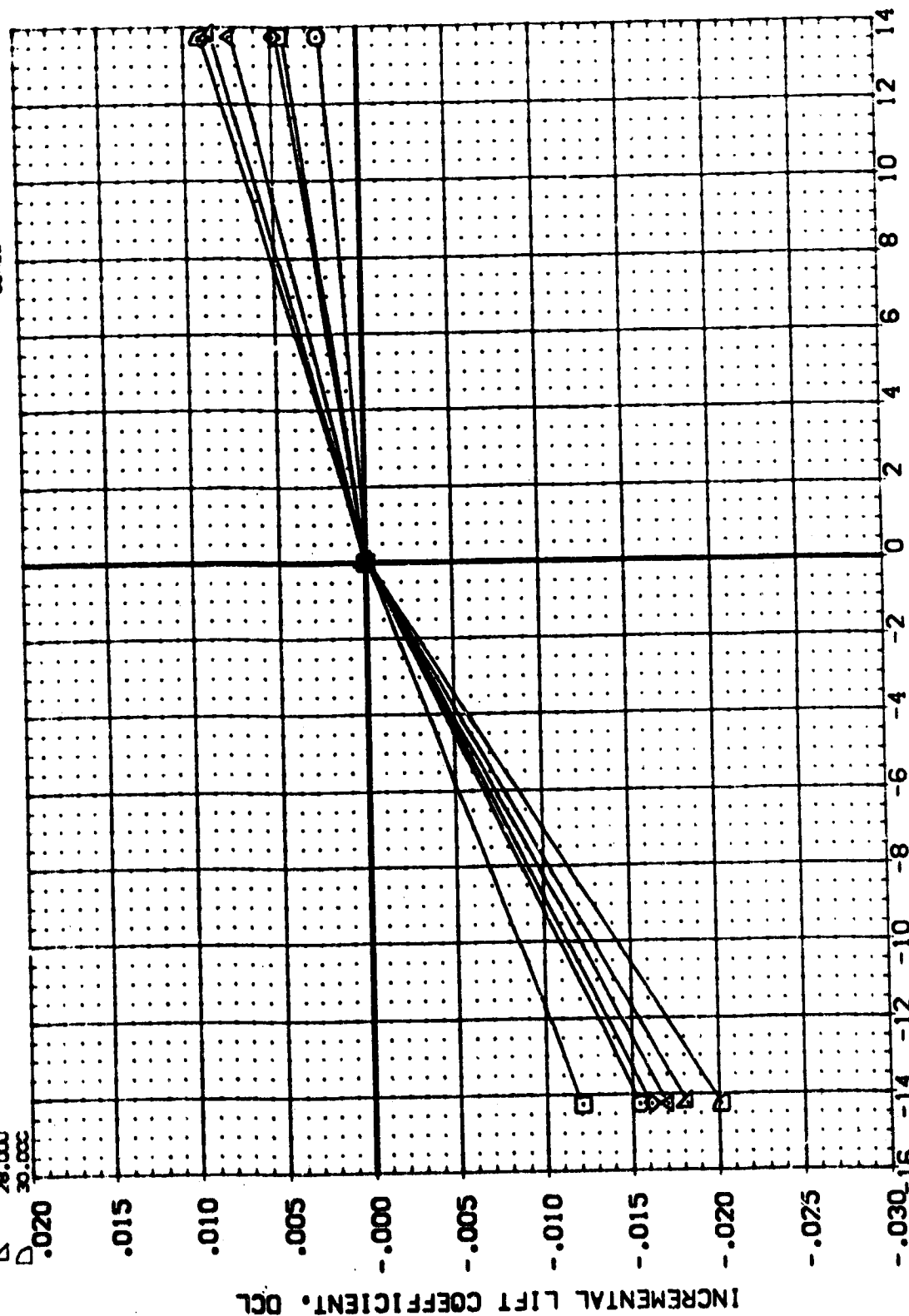


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(L87059)

MSFC 574(CA48) ORB 139

SYMBOL	ALPHA	PACH	ELEVTR	SPDRK	PARAMETRIC VALUES	.000	DATASET	DBF	-14.250	13.750	DATASET	DBF	.000	L87049	SREF	2690.0000	SO.F.T.
○	32.000				4.950	BETA	.000	L87059				LREF	474.8000				
□	34.000				.000	AILRON	.000	L87057				BREF	936.7000				
◇	36.000				999.990							XREF	838.7000				
△	38.000											YREF	.0000				
	40.000											ZREF	.0000				
												SCALE	.0040				

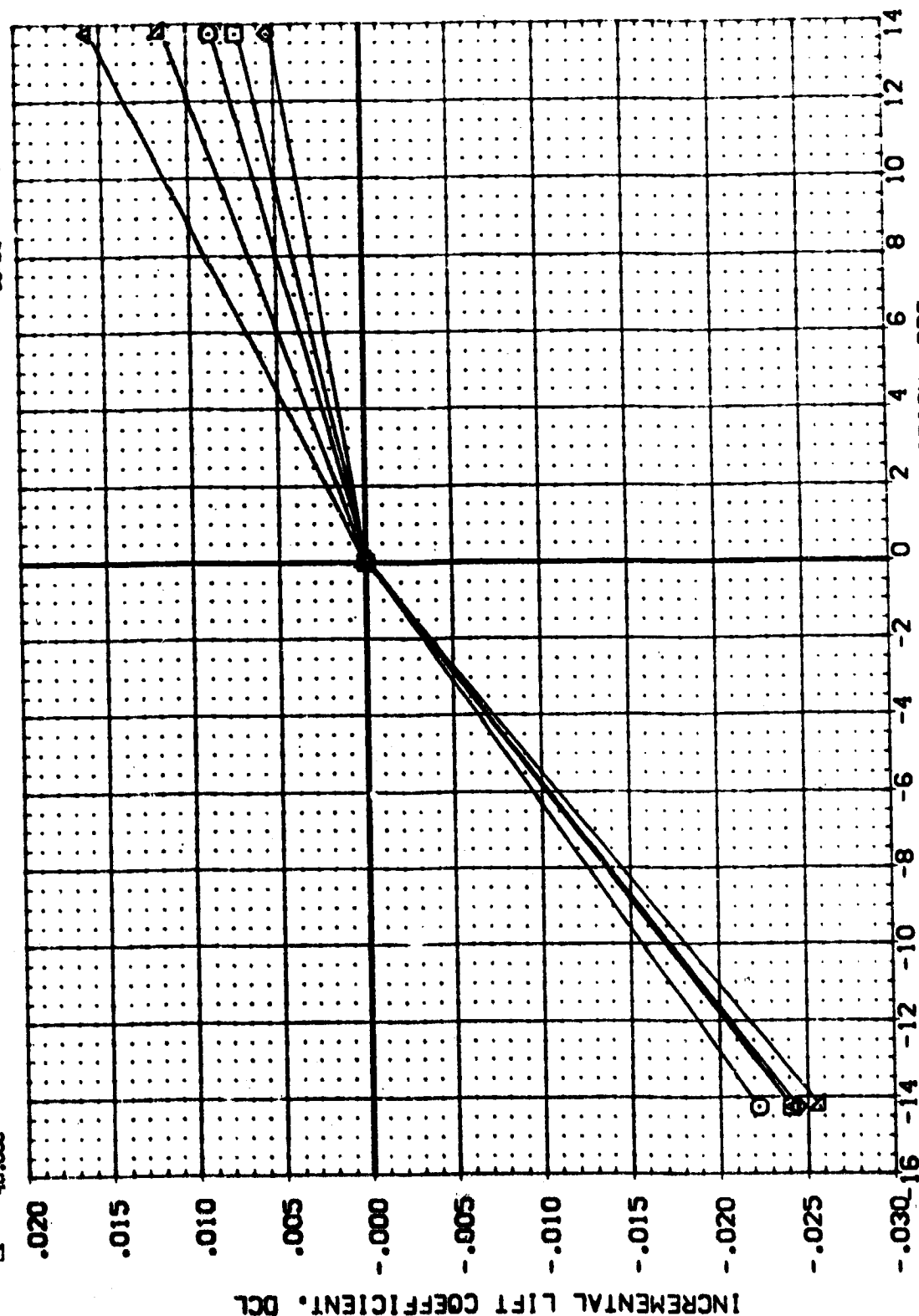


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

MSFC 574(0A48) ORB 139

SYMBOL ALPHA MACH ELEVTR SPDRK

PARAMETRIC VALUES

DATA SOURCE

REFERENCE INFORMATION

SYMBOL

SCALE

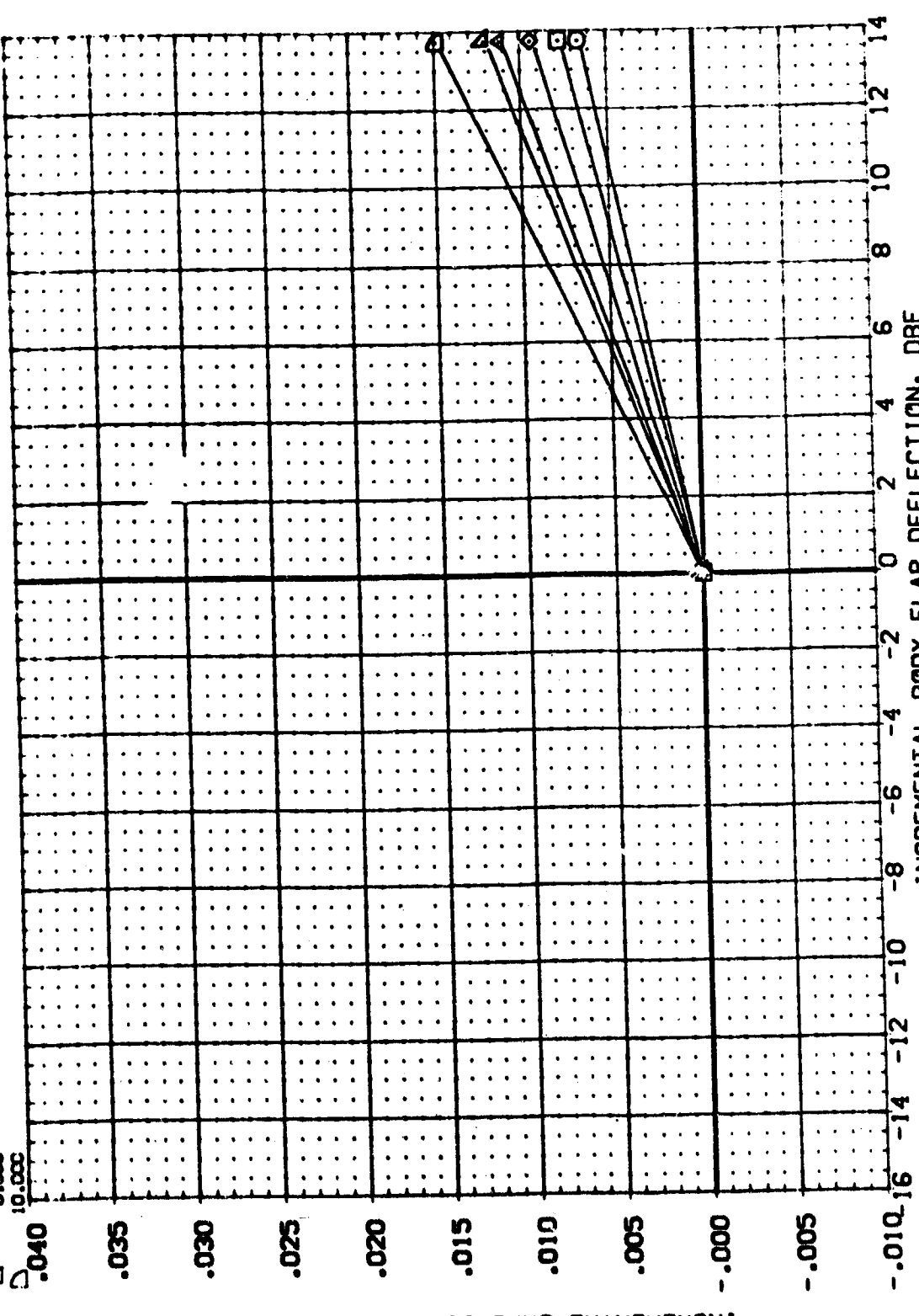


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(#87058)

VSFC 574(0A48) CRB 139

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	12.000	.800	BETA	DBF	SREF
□	14.000	.000	A:LRN	DBF	REF
△	16.000	999.999		DBF	DBF
▽	18.000			DBF	XREF
	20.000			DBF	YREF
				DBF	ZREF
				DBF	SCALE

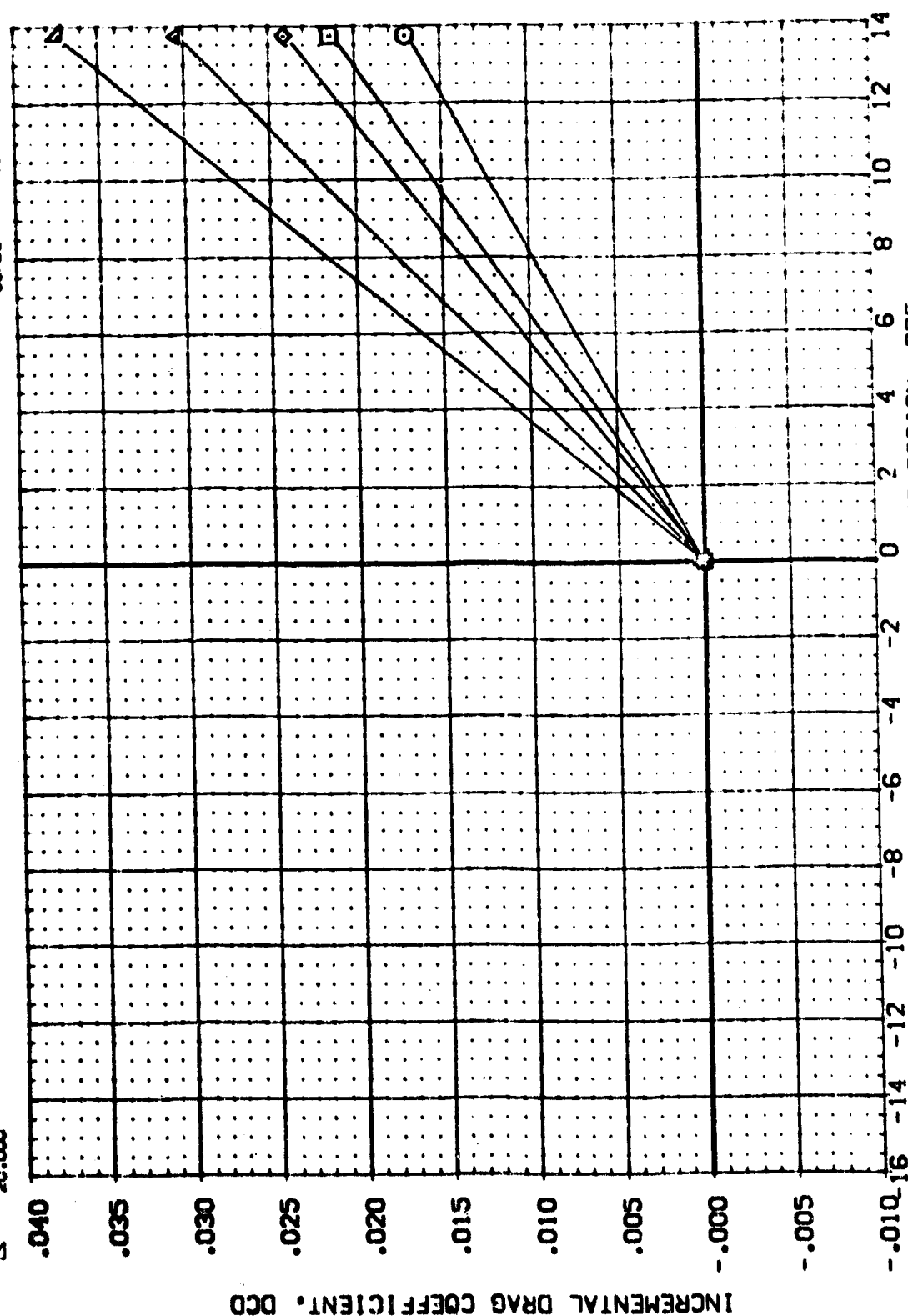


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(*87058)

VSFC 574(0A48) ORB 139

SYNCC	ALPHA	MAC	ELEVTR	SPDRK	PARAMETRIC VALUES	.000	.900	BETA	.000	DATA SET	DBF	DATA SOURCE	DBF	REF	2690.0000	SCALE	2.222222
	2.000					.000	.000		.000	L87048				LREF	474.8000		
	4.000					.000	.000		.000					XPREF	936.7000		
	6.000					.000	.000		.000					YMRP	836.7000		
	8.000					.000	.000		.000					ZMRP	.0000		
	10.000					.000	.000		.000					SCALE	.0010		

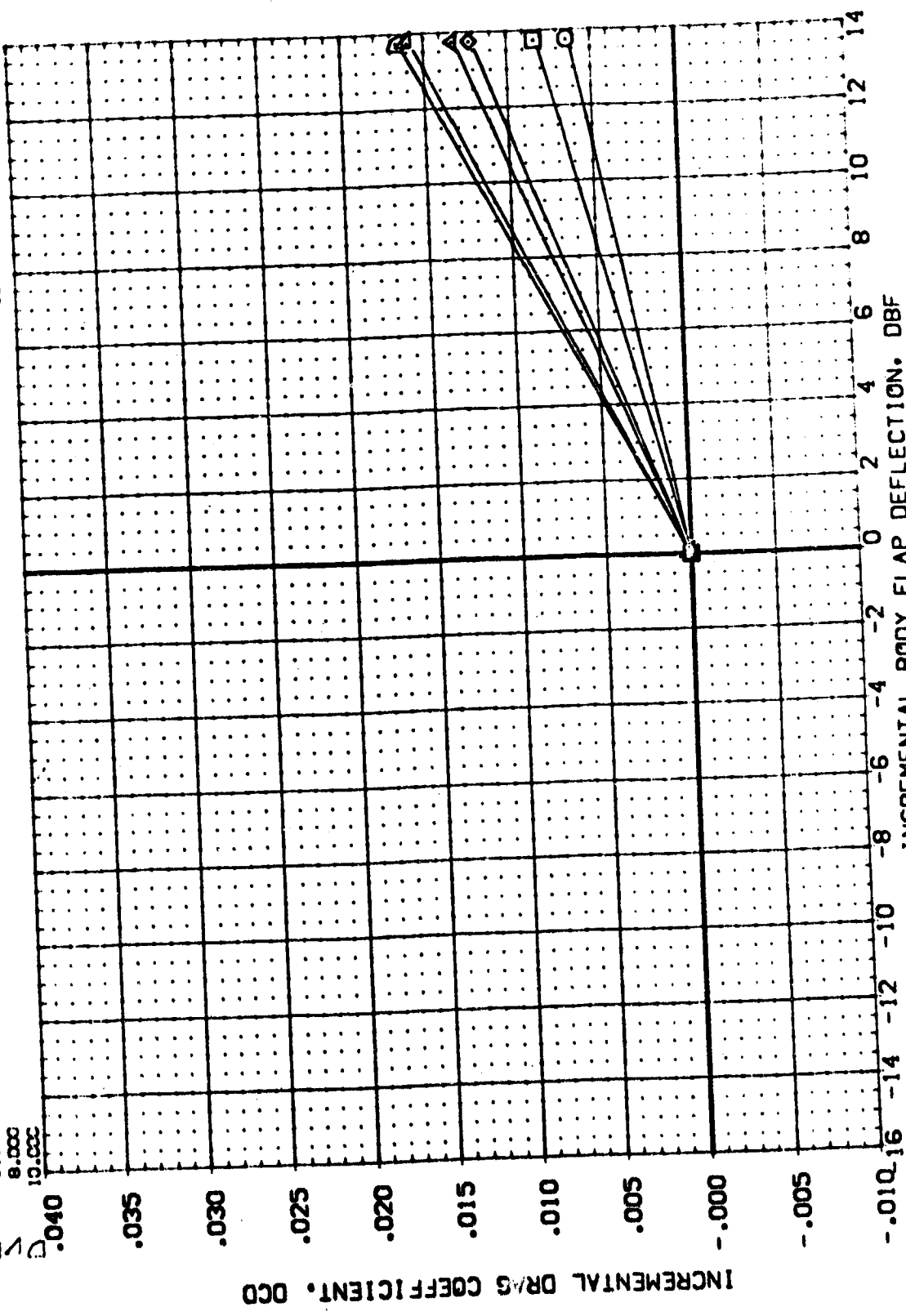


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(#87058)

WSEC 574(OA48) ORB 139

SYNOPSIS	ALPHA
0	10.000
1	8.000
2	6.000
3	4.000
4	2.000
5	.000

MACB
ELEVTB
SPYBRK

PARAMETRIC VALUES

.000 DATASET
 .000 +87059
 .000 L87056

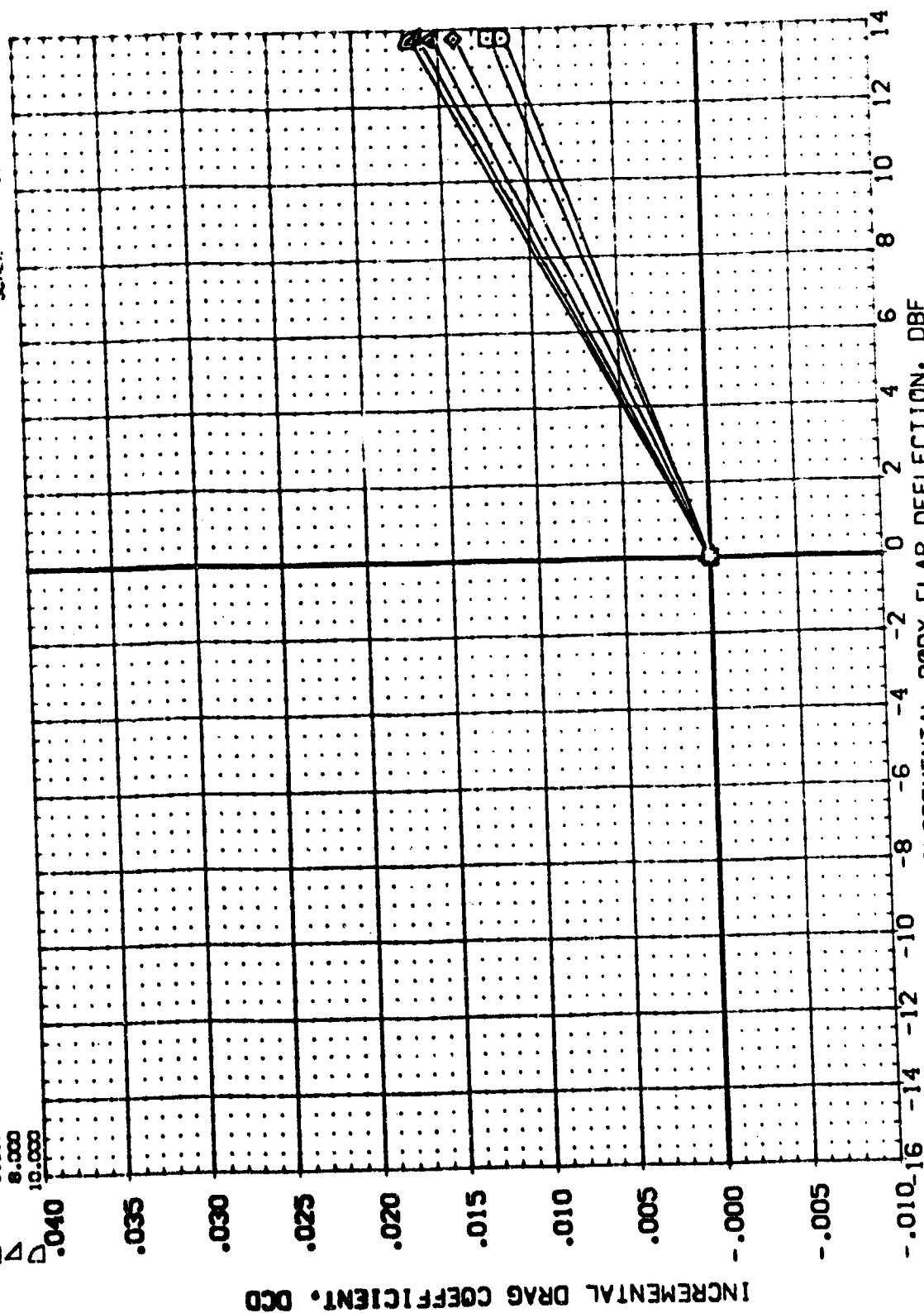
DATA SOURCE
-14.250
13.750

DATA SET 1
L 077048

37425
c2442
c2414
c241X
330E
3324
3325

REF ID: A61078

2690 0000
474 BCC
936 DCC
838 7000
0000
0000
0000



VSFC 574(CA48) CR3 : 39

REFERENCE INFORMATION

SCA
7060
6860
6760
6660
6560

50

DATA: 187048

DATA SOURCE
14.75C

000	DATE 7
000	087058
	087056

PARAMETRIC VALUES
1.700 BETA
.000 AIRCRA
999.990

**MACH
ELEVIR
SPDRX**

ALP-A
:2.000
:4.000
16.000
18.000
20.000

SECRET

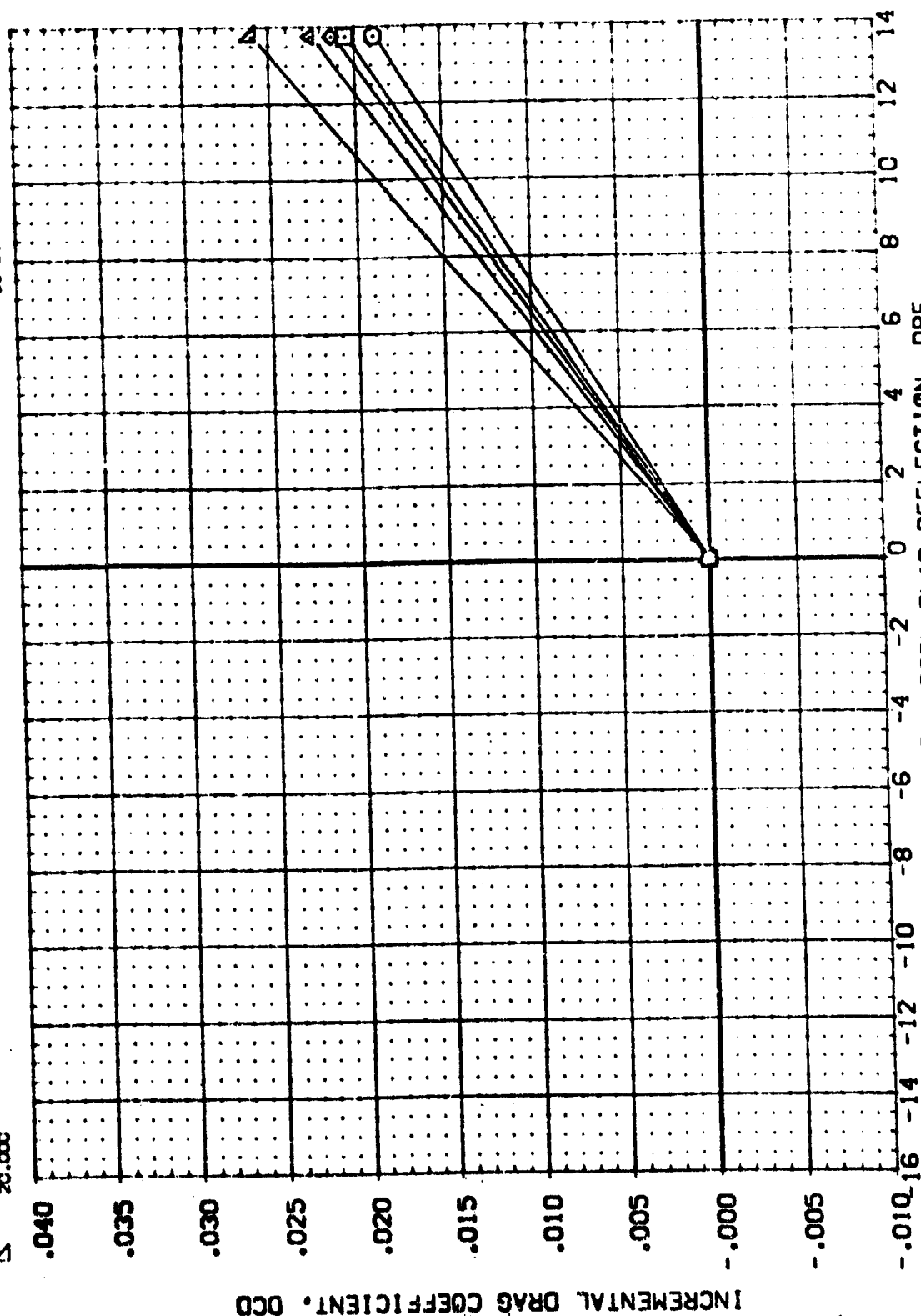


FIG. 36

(*87058)

VSFC 574(0A48) ORB 139

REFERENCE INFORMATION

DATA SOURCE
DBF -14.250
13.750

DATASET DBF
087058
087058

PARAMETRIC VALUES
1.950 BETA
0.000 AILRON
999.990

WACH
ELEVTR
SPDRBK

ALPHA
0.000
2.000
4.000
6.000
8.000
10.000

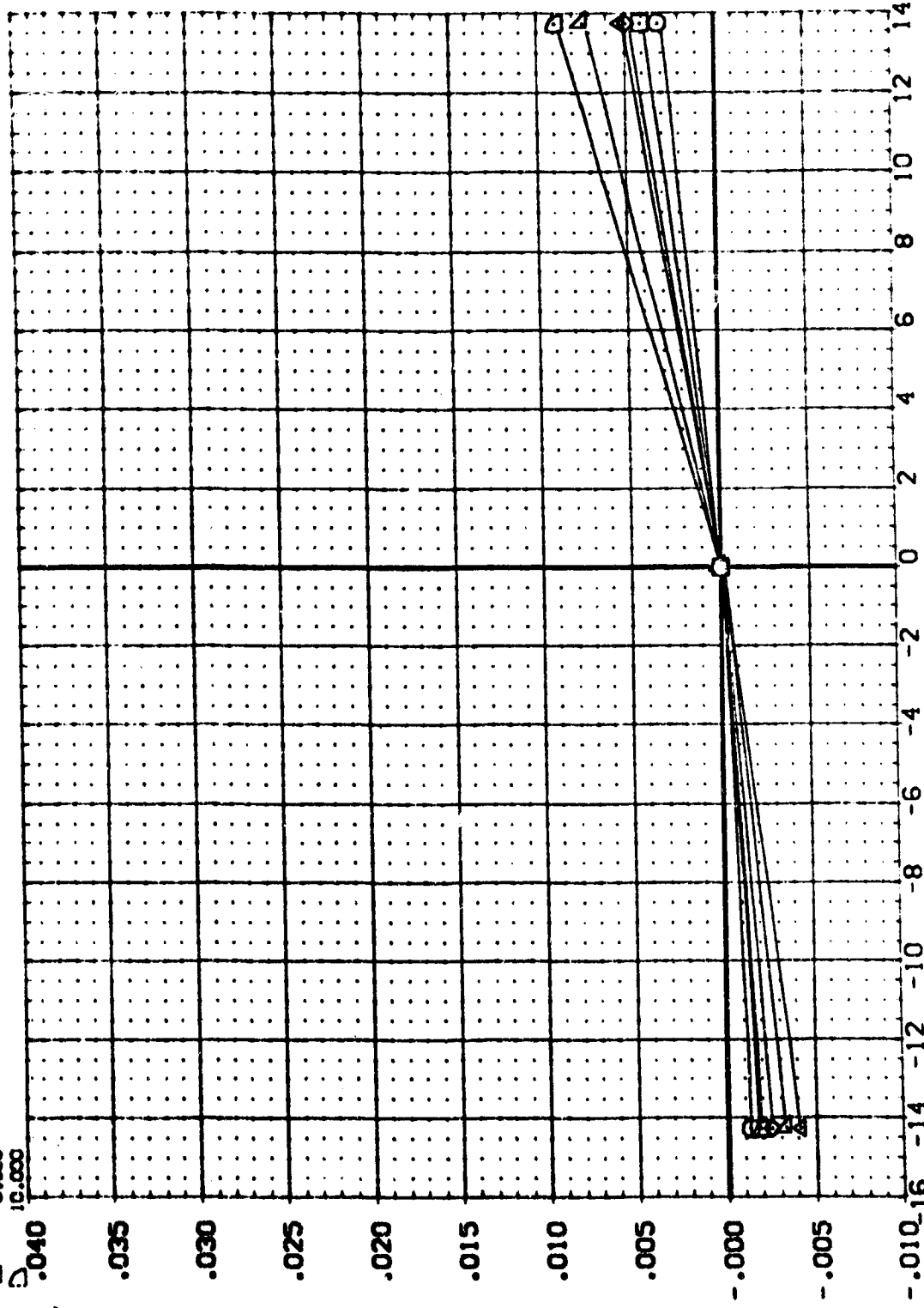


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(#87058)

NSFC 574(0A48) CRB 139

SYMBOL	ALPHA	MACH	ELEVTR	SPDB.N	PARAMETRIC VALUES	.000	DATASET	DBF	DATA SOURCE	DATASET	DBF	SRES	REFERENCE INFORMATION
12.000	1.950	BETA											2650.0000
14.000	.000	ALLRON											474.8000
16.000	999.990												936.7000
18.000													838.7000
20.000													.0000
													.0000
													.0040
													SCALE

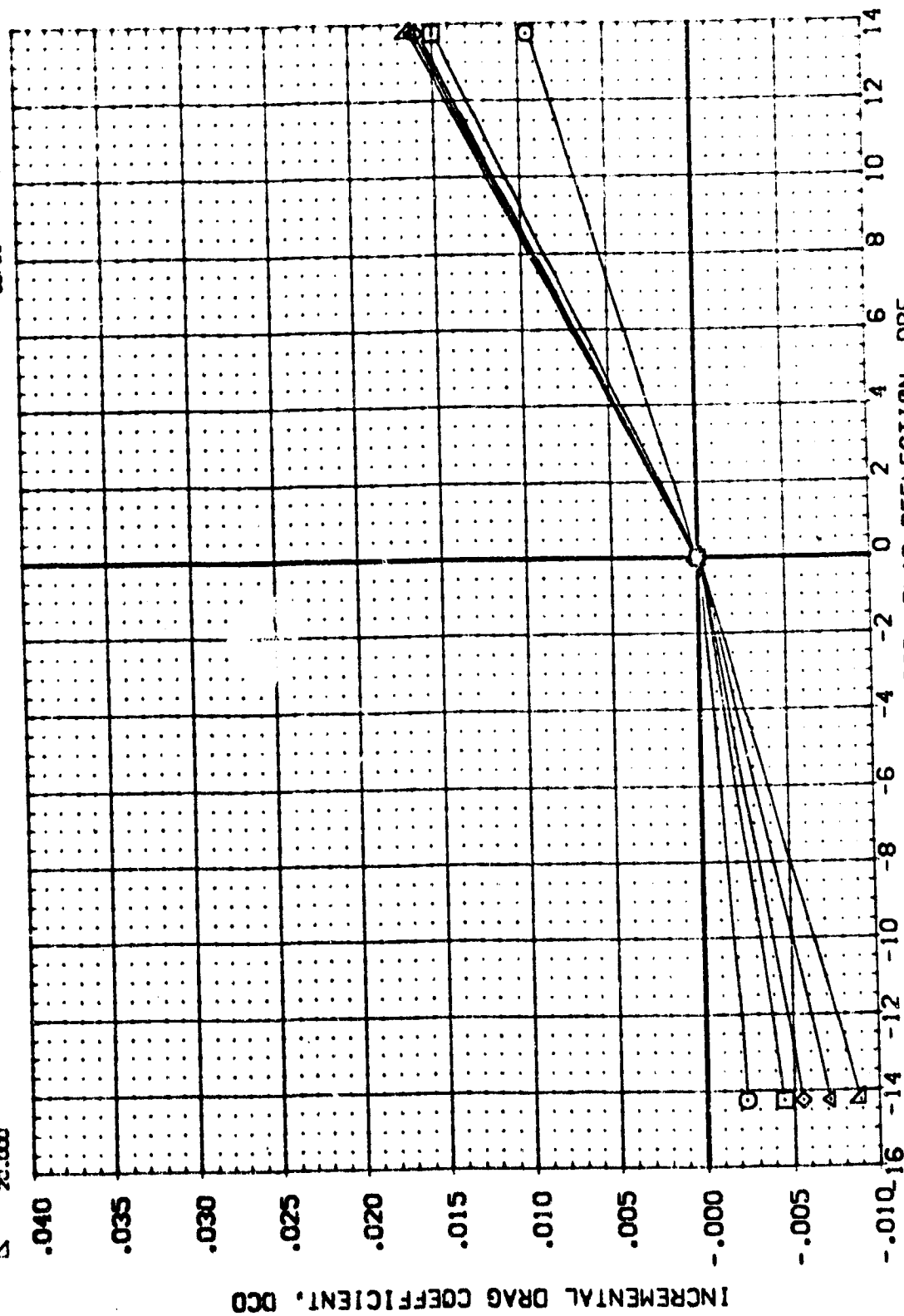


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(*87058)

VSFC 574(GA48) CR3 :39

ALPHA
2.000
4.000
6.000
8.000
10.000

MACH
ELEVIR
SPORR
2.950
.000
999.950

DATASET
.000
87058
87058

DATA SOURCE
DBF
-14.750
13.750

DATASET
L87048
.000

SREF
LRTF
BRFF
XREF
YREF
ZREF
SCALE

REFERENCE INFORMATION

2690.0000
474.8000
936.7000
838.7000
.0000
.0000
.0040

52.11

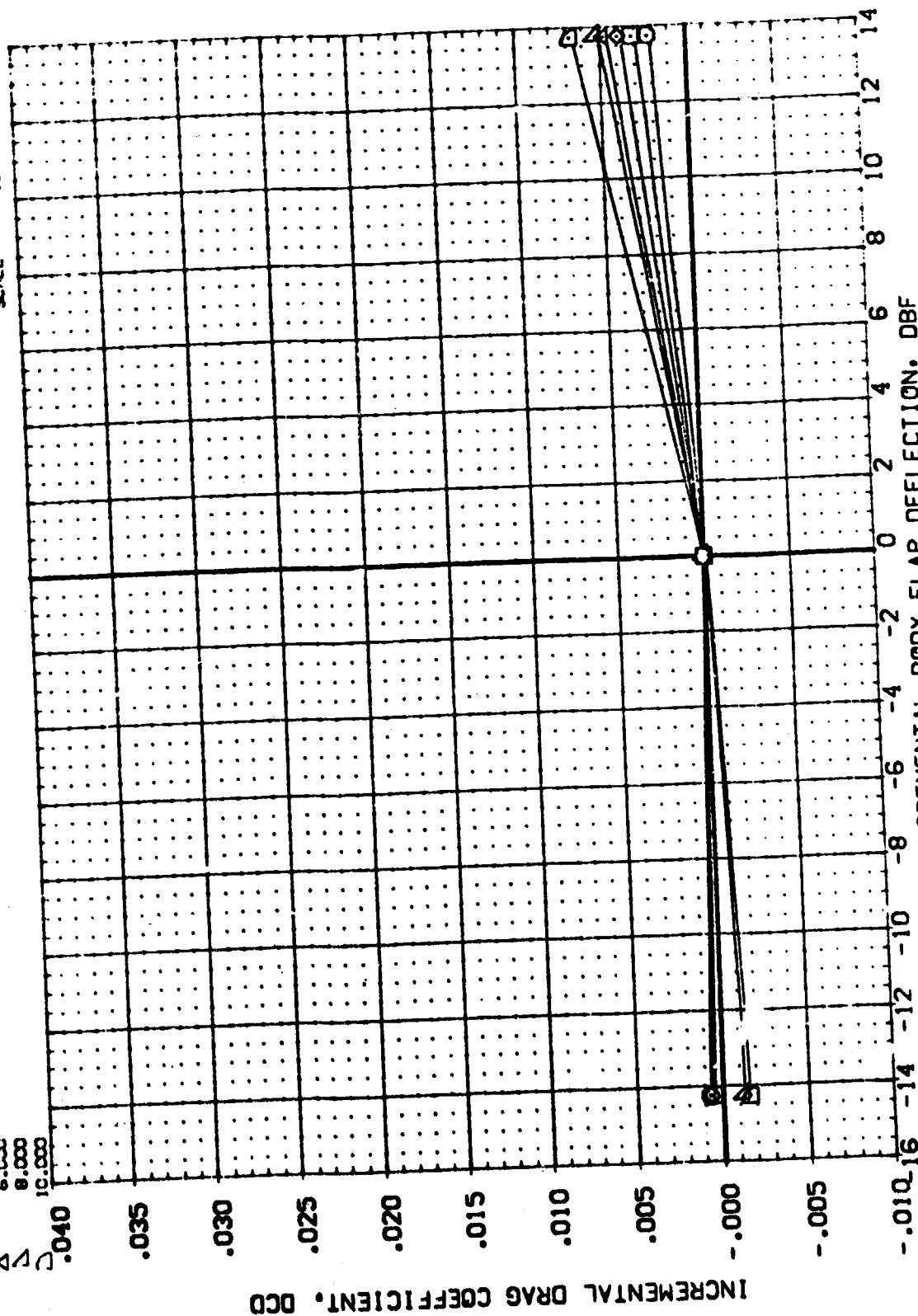


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

SYMB.	ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
○	12.000	2.990	BETA	.000	DATASET	DBF	SREF	2690.0000
◇	14.000	ELEVTR	.000	AILRON	.000	REF	474.8000	50.0000
△	16.000	SPDRM	999.990		1.97048	DBF	936.7000	10.0000
▽	18.000				-14.750		838.7000	10.0000
	20.000				13.750		.0000	10.0000
							7.0000	10.0000
							SCALE	.0040

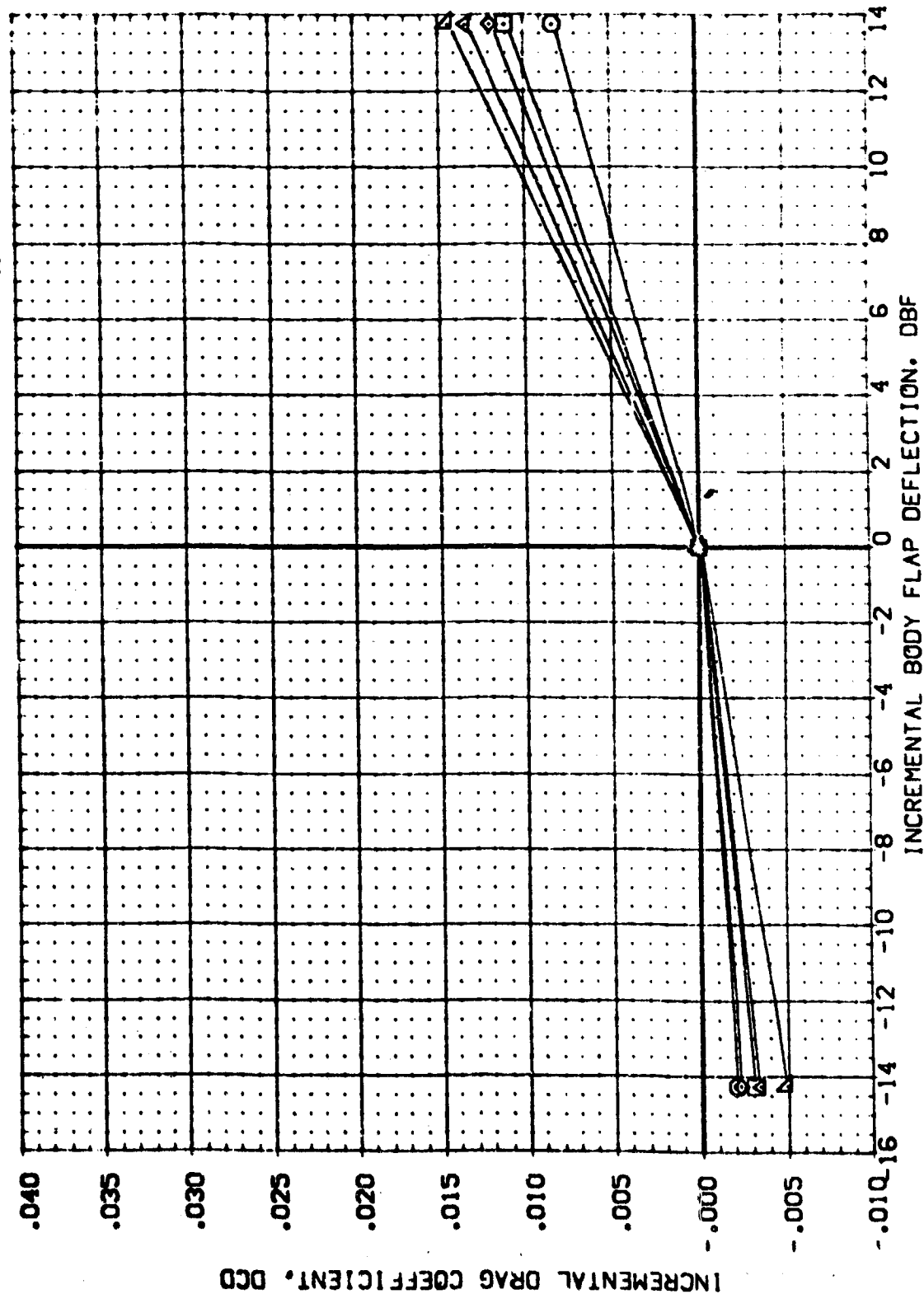


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(*87058)

VSFC 574(0A48) CRB 139

SYMBOL		ALPHA		MACH		PARAMETRIC VALUES		DATA SOURCE		DATASET		DBF		DATASET		DBF		SREF		REFERENCE INFORMATION	
□	○	.000	4.960	.000	BETA	.000	87058	.000	87058	.000	87058	.000	87058	.000	87058	.000	87058	.000	87058	.000	87058
□	○	2.000	.000	.000	AILRON	.000	87058	.000	87058	.000	87058	.000	87058	.000	87058	.000	87058	.000	87058	.000	87058
□	○	4.000	999.990	999.990																	
□	○	6.000																			
□	○	8.000																			
□	○	10.000																			

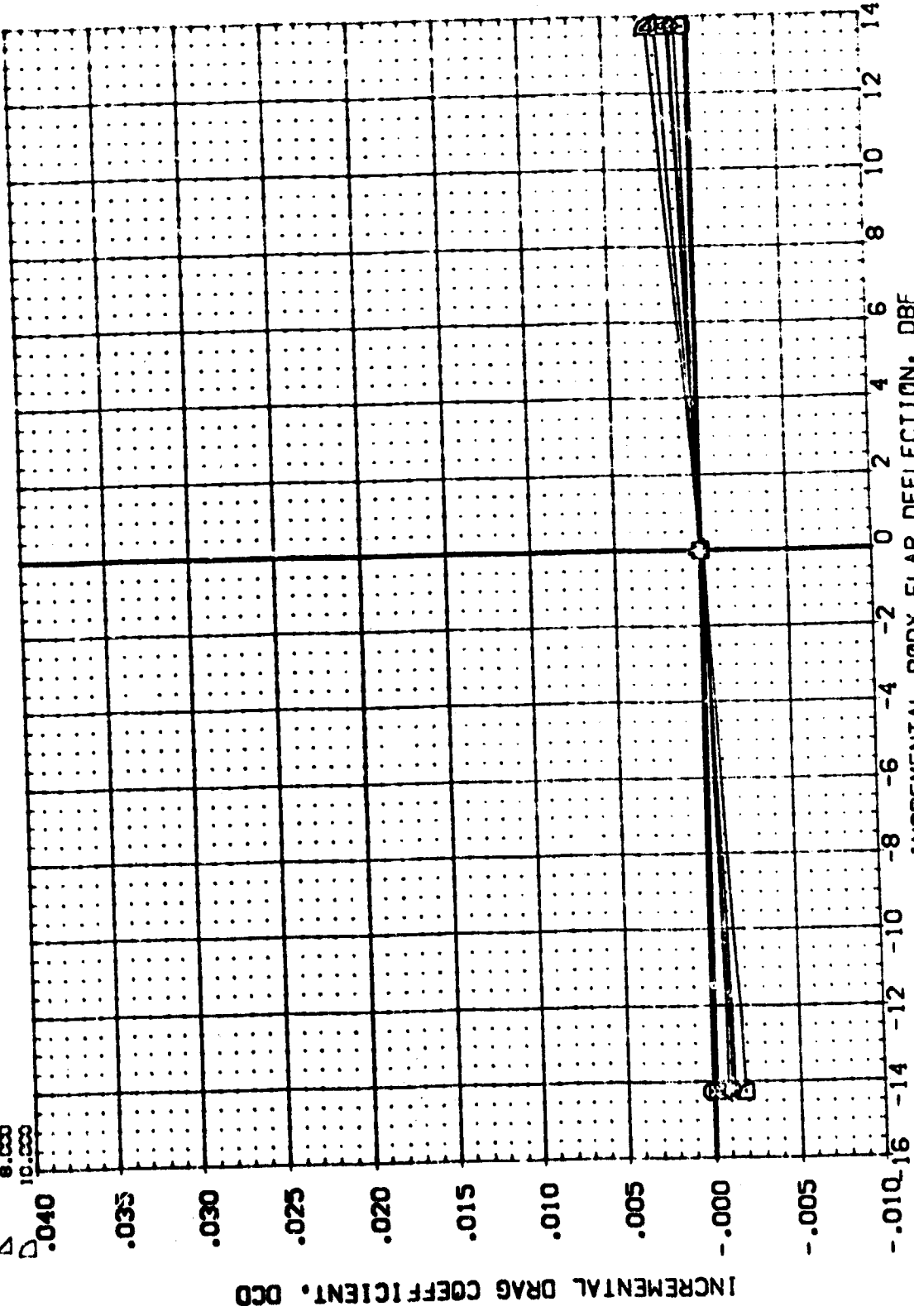


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(#87058)

VSFC 574(CA48) OR3 :39

SYMBOL	ALPHA	MACH	ELEVTR	SPDR	PARAMETRIC VALUES	DATA SOURCE	DATA SET	DBF	REF	REFERENCE INFORMATION
○	12.000	4.960	.000	BETA	.000	DBF	L87048	.000	SRF	7690.0000
□	14.000	.000	ALLRON	.000	.000	DBF	L87056	.000	LRF	474.8000
△	16.000	999.990			.000	DBF	L87058	.000	BRF	936.7000
▽	18.000				.000	DBF	L87056	.000	MAP	838.0000
◇	20.000				.000	DBF	L87056	.000	VPR	.0000
					.000	DBF	L87056	.000	ZPR	.0000
					.000	DBF	L87056	.000	SCALE	.0010

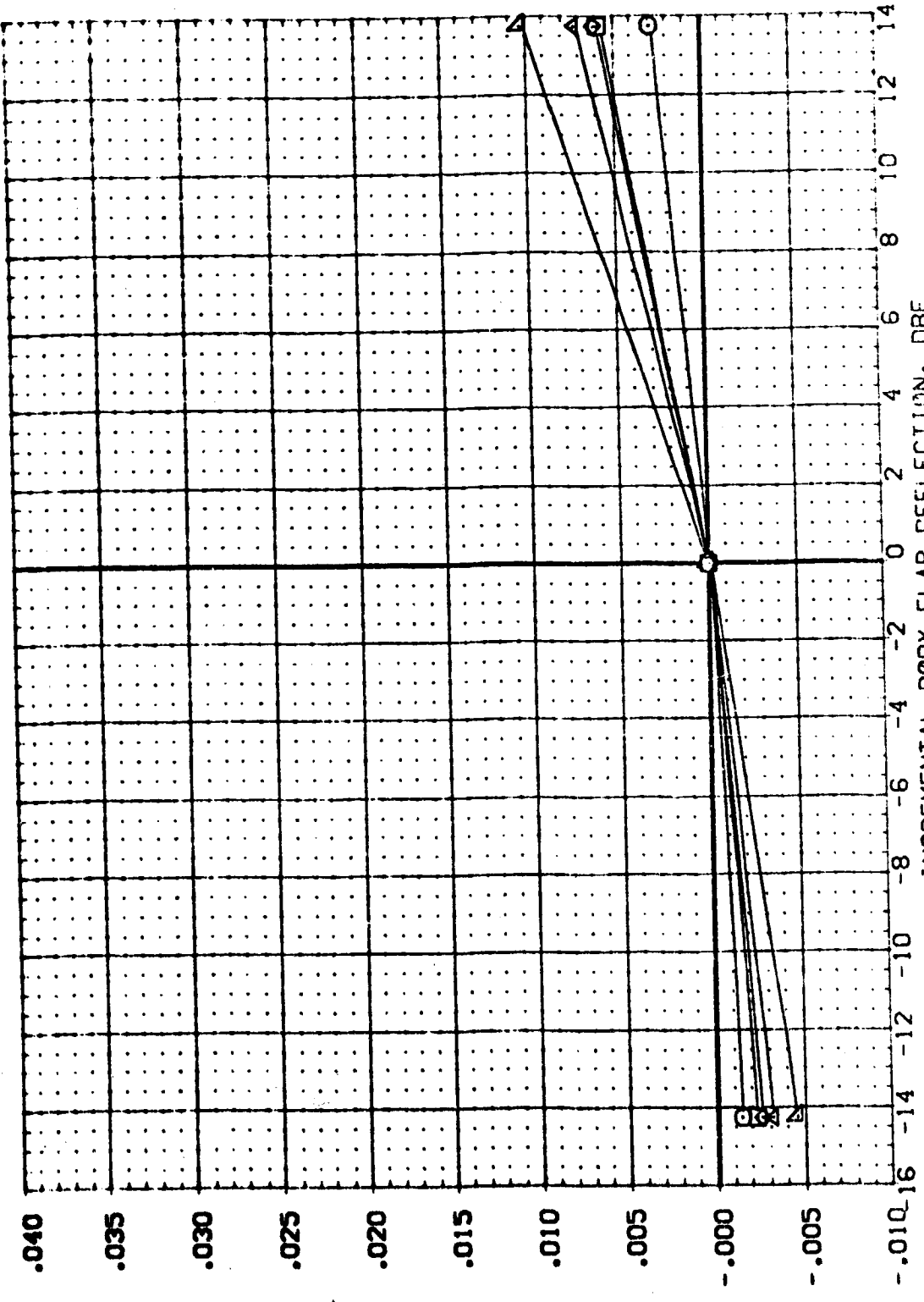


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

SYMBOL	ALPHA	WACH	ELEVTR	SPODR	PARAMETRIC VALUES	DATA SOURCE	DATASET	DBF	SRRF	REFERENCE INFORMATION
○	22.000				2.990	DBF	L87059	.000	LRI F	7690.0000
○	22.000				.000	-14.250	L87049	.000	BRI F	474.8000
◇	24.000				999.990	13.750	L87057		XMAP	936.7000
△	26.000								YMAP	838.7000
									ZMAP	0000.0000
									SMA F	0040.0040

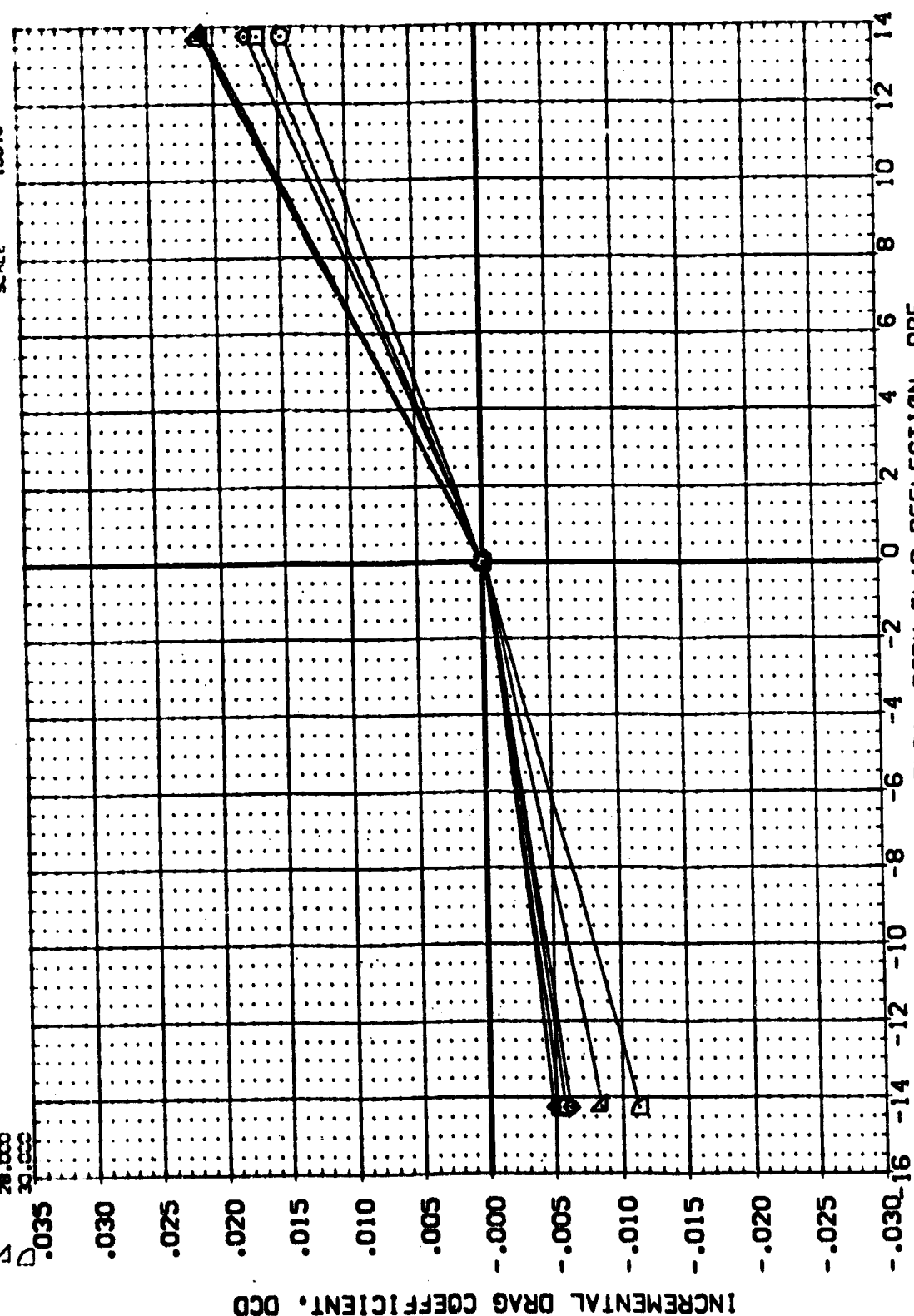


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(L87059)

VSFC 574(CA48) ORB 139

SYMB.	ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
○	32.000	ELEVTR	2.990	BETA	.000	DBF	SREF	2690.0000
◇	34.000	SPDRK	.000	AILRON	.000	DBF	LREF	474.8000
△	36.000		999.990		.000	DBF	BREF	936.7000
	38.000				.000	DBF	XMRP	838.0000
	40.000				.000	DBF	YMRP	.0000
					.000	DBF	ZMRP	.0000
					.000	DBF	SCALE	.0010

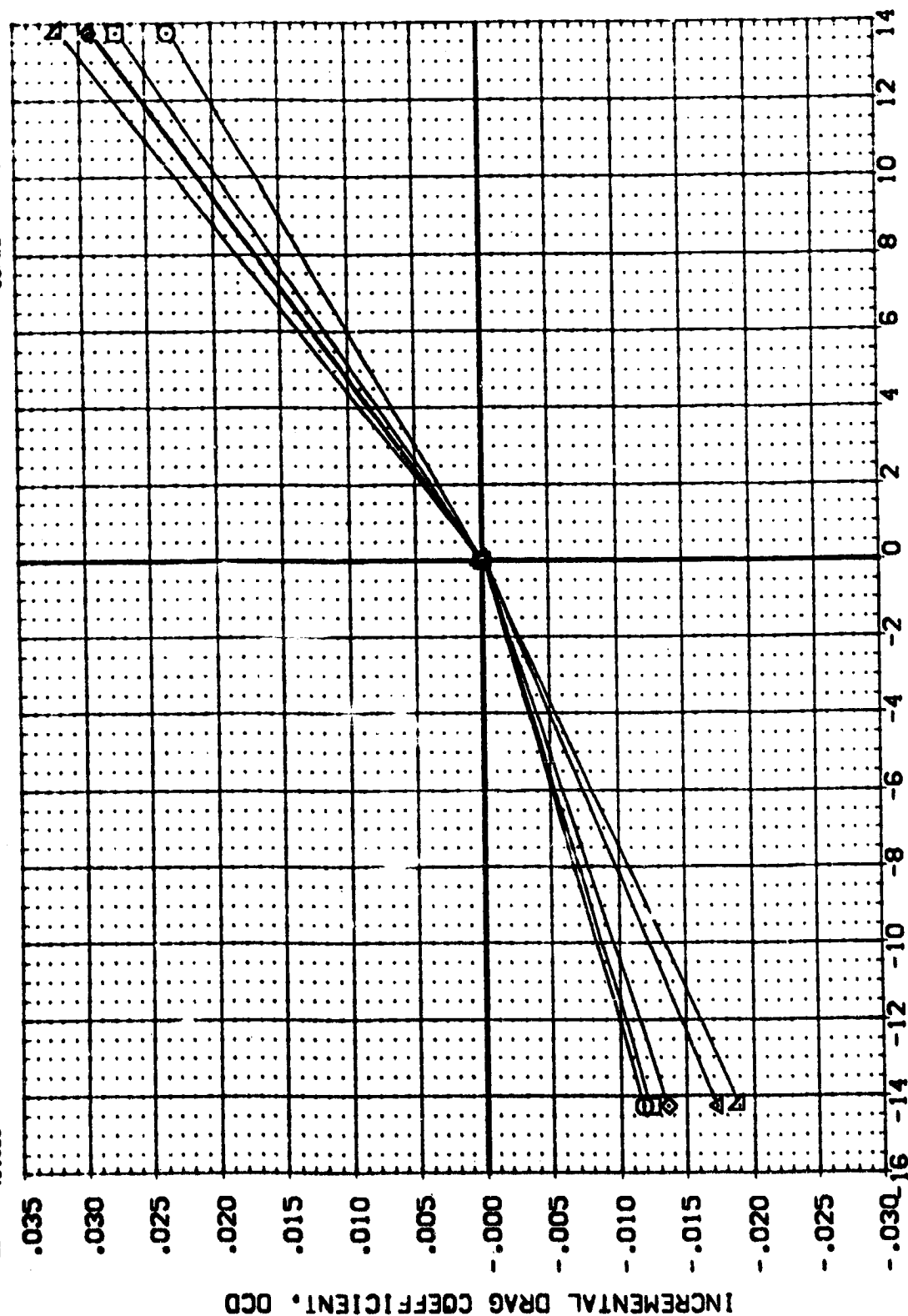


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

VSFC 574(CA48) ORB 139

(L87059)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	MACH	DBF	DBF	SREF	SCALE
20.000	4.960	.000	.000	7690.0000	
27.000	ELEVTR	.000	.000	LREF	
24.000	SPDRK	.000	.000	936.7000	
26.000		.000	.000	838.7000	
30.000		.000	.000	YREF	
		.000	.000	ZREF	
		.000	.000	SCALE	

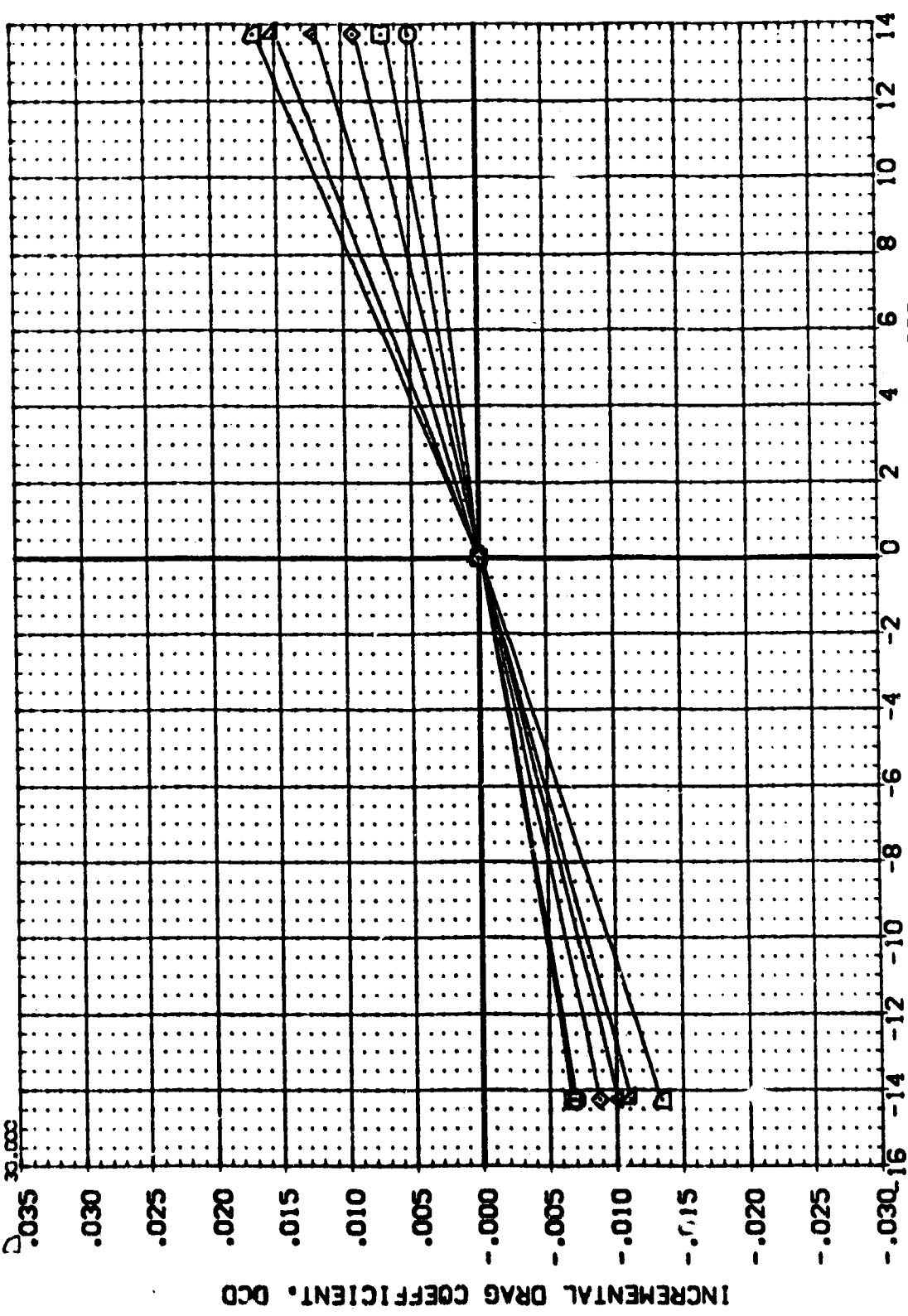


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

VSC 574(0A48) CRB 139

(L87059)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	.000	DATASET	DBF	DATA SOURCE	DATASET	DBF	SREF	REFERENCE INFORMATION
01	32.000	ELEVTR	4.950 BETA	.000	L87059	-14.250	L87049	.000	LREF	7690.0000	50.000
02	34.000	SPDRK	.000 AIRCN	.000	L87057	13.750			BREF	474.8000	2.000
03	36.000		959.99C						XREF	936.7000	2.000
04	38.000								YREF	838.7000	2.000
05	40.000								ZREF	.0000	2.000
									SCALE	.0040	

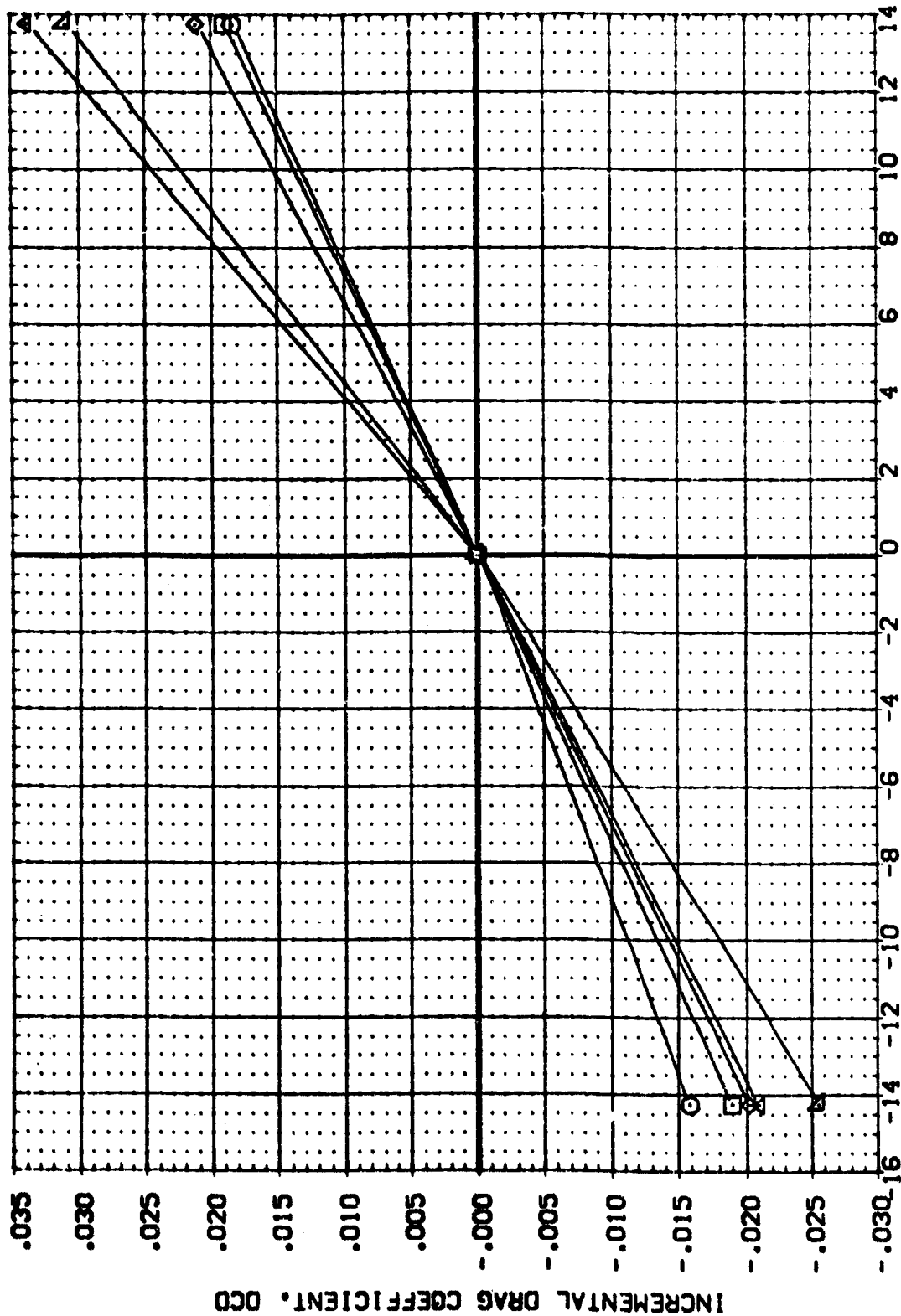


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

MSFC 574(CA48) CR3 139

(L87058)

SYMC.	ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE	DATASET	DBF	SREF	REFERENCE INFORMATION	
0.00	.000	ELEVTR	.600	BETA	DBF	L87048	.000	LREF	2690.0000	SCALE
0.00	2.000	SPDRK	.000	AILRON	-14.750			LRFP	474.8000	1.0000
0.00	4.000		999.990		13.750			XRFP	936.7000	1.0000
0.00	6.000							YMRP	838.7000	1.0000
0.00	8.000							ZMRP	.0000	1.0000
0.00	10.000							SCALE	.0010	1.0000

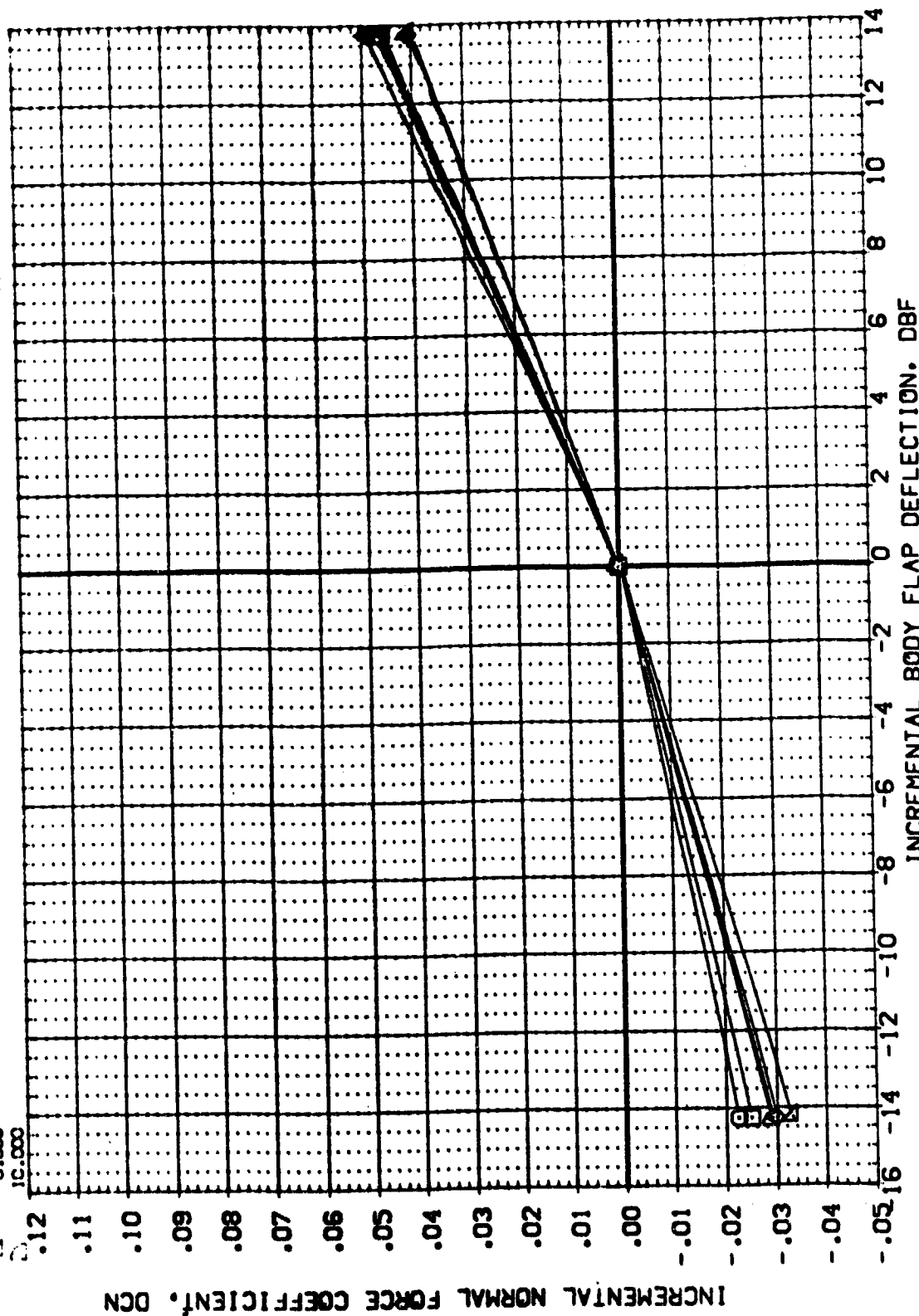


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(L87058)

MSFC 574(0A48) ORB 139

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
1	12.000		BETA	DBF	SREF
2	14.000		AILRON	DBF	LREF
3	16.000		SPDRK	DBF	BREF
4	18.000			DBF	XMRP
5	20.000			DBF	YMRP
				SCALE	SCALE

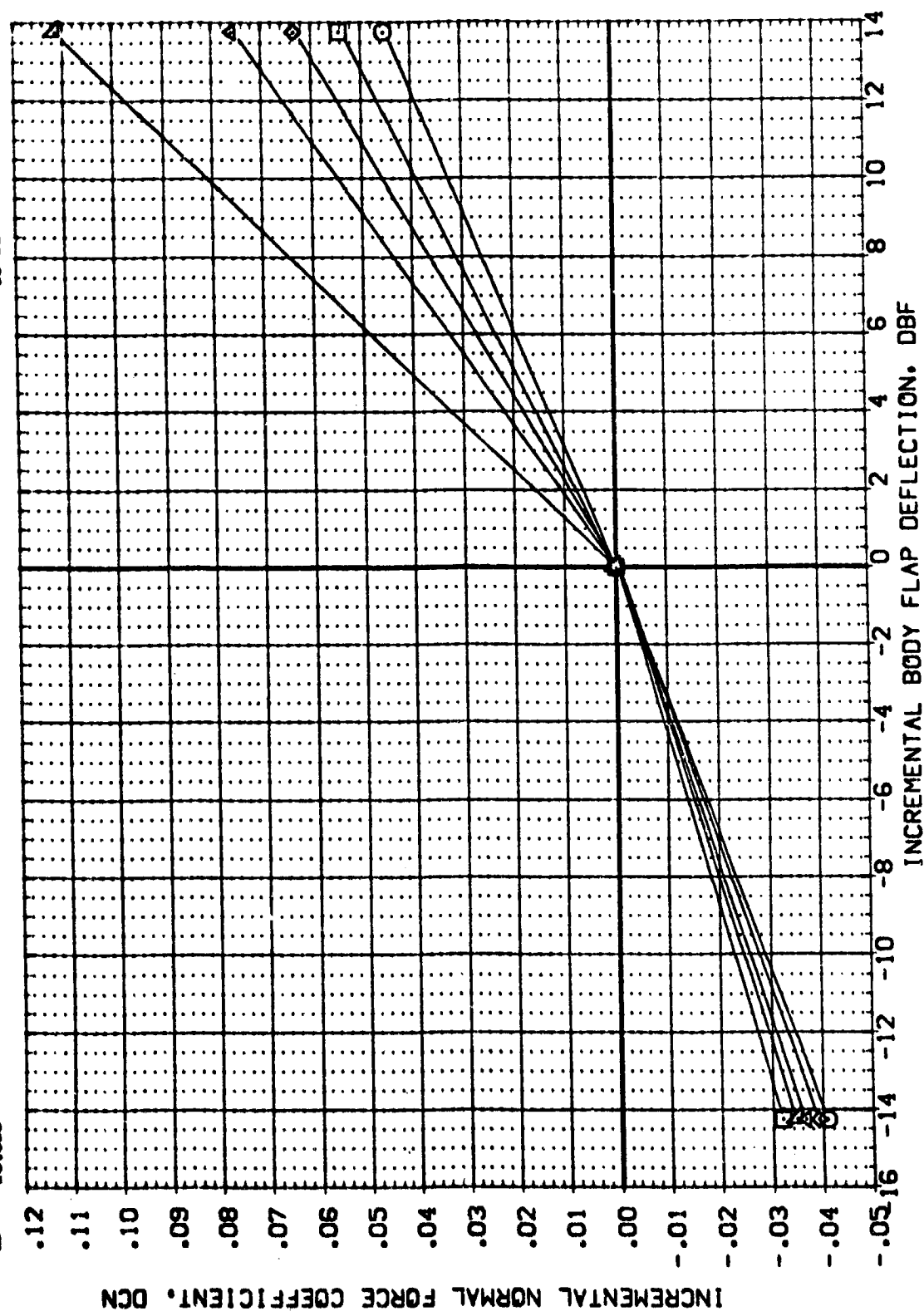


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(L87058)

MSFC 574(0A48) CRB 139

REFERENCE INFORMATION
SC.FT.
2690.0000
474.8000
936.7000
838.7000
0.0000
0.0000
0.0010

DATA SOURCE
DBF
-14.250
13.750

PARAMETRIC VALUES
MACH .900
ELEVTR .000
SPDRK 999.990

DATA SET DBF
L87048
L87058
L87056

SYMBOL
□
◇
△
▽
○

ALPHA
.000
2.000
4.000
6.000
8.000
10.000

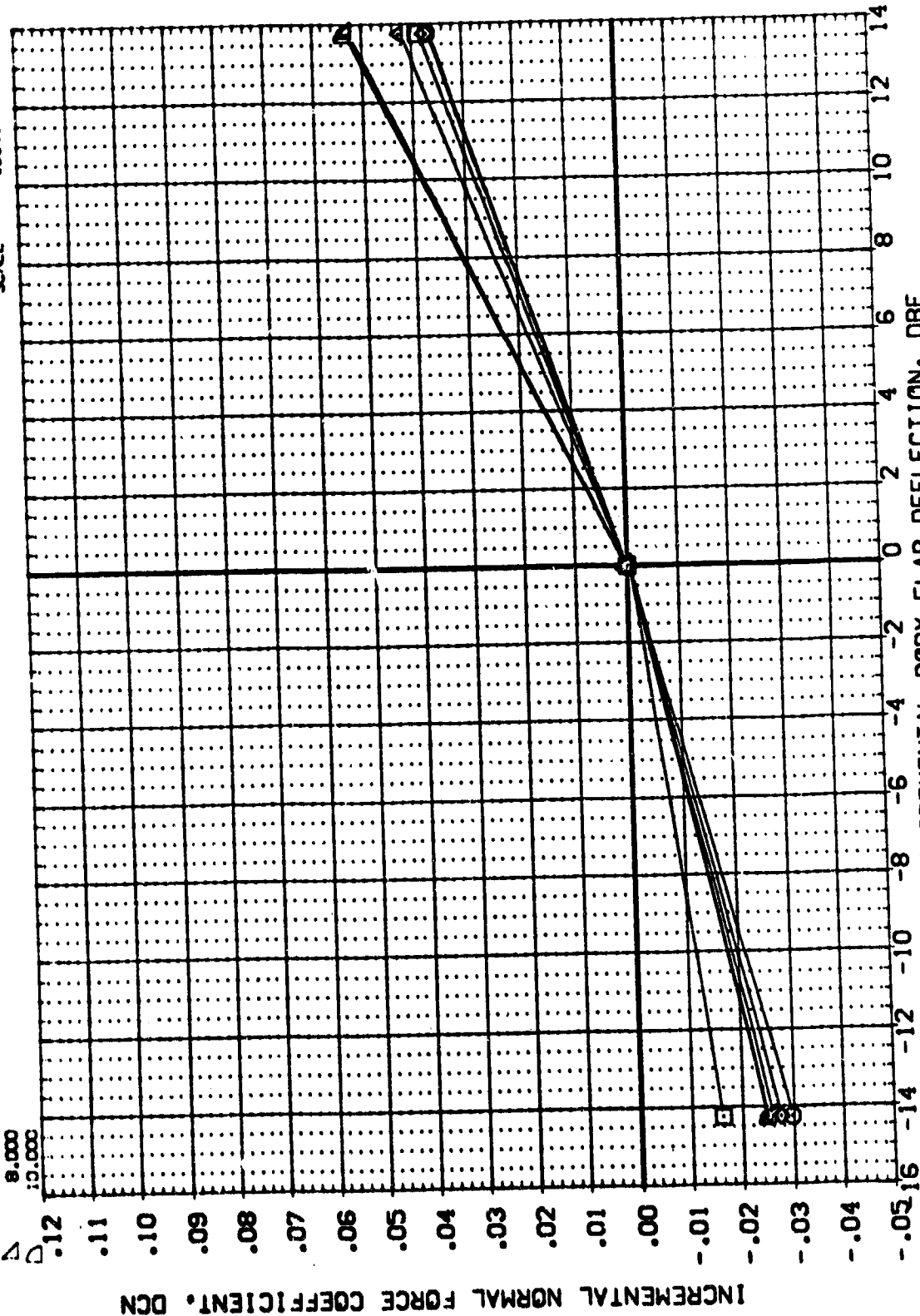


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(L87058)

MSFC 574(CA48) ORB 139

SYMC	A PVA	WACH	PARAMETRIC VALUES	.000	DATASET	DBF	DATA SOURCE	DBF	DATASET	DBF	SREF	REFERENCE INFORMATION
12.000	.900	BETA	.000	L87058	.000	L87048	L87048	.000	L87048	.000	2690.0000	SO.F.
14.000	.000	ALTRON	.000	L87058	.000	L87048	L87048	.000	L87048	.000	474.8000	22.2222
16.000	.999.990	SPDRY	.000	L87058	.000	L87048	L87048	.000	L87048	.000	936.7000	22.2222
18.000											838.0000	22.2222
20.000											.0000	22.2222
											.0000	22.2222
											.0040	22.2222

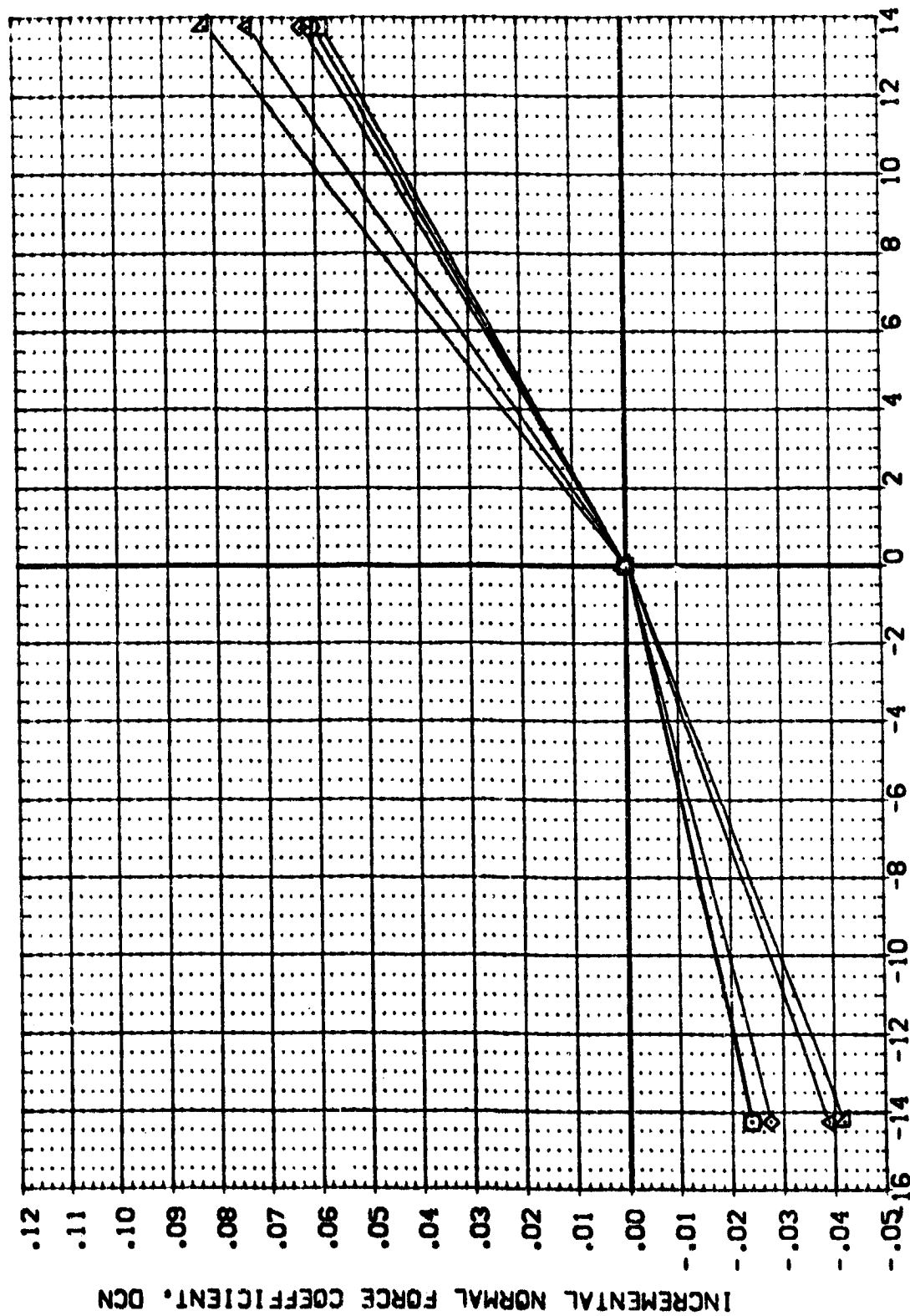


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

MSFC 574(CA48) ORB 139

(L87058)

REFERENCE INFORMATION
SQ.F.T.
7690.0000
474.8000
936.7000
838.0000
0.0000
0.0000
0.0010

DATA SOURCE
DBF
-14.25C
13.75C
DATASET
L87058
L87056
DBF
L87048
SCALE

PARAMETRIC VALUES
BETA
AILRON
MACH
ELEVTR
SPDRK
1.200
.000
999.990

ALPHA
1.000
2.000
4.000
6.000
8.000
10.000

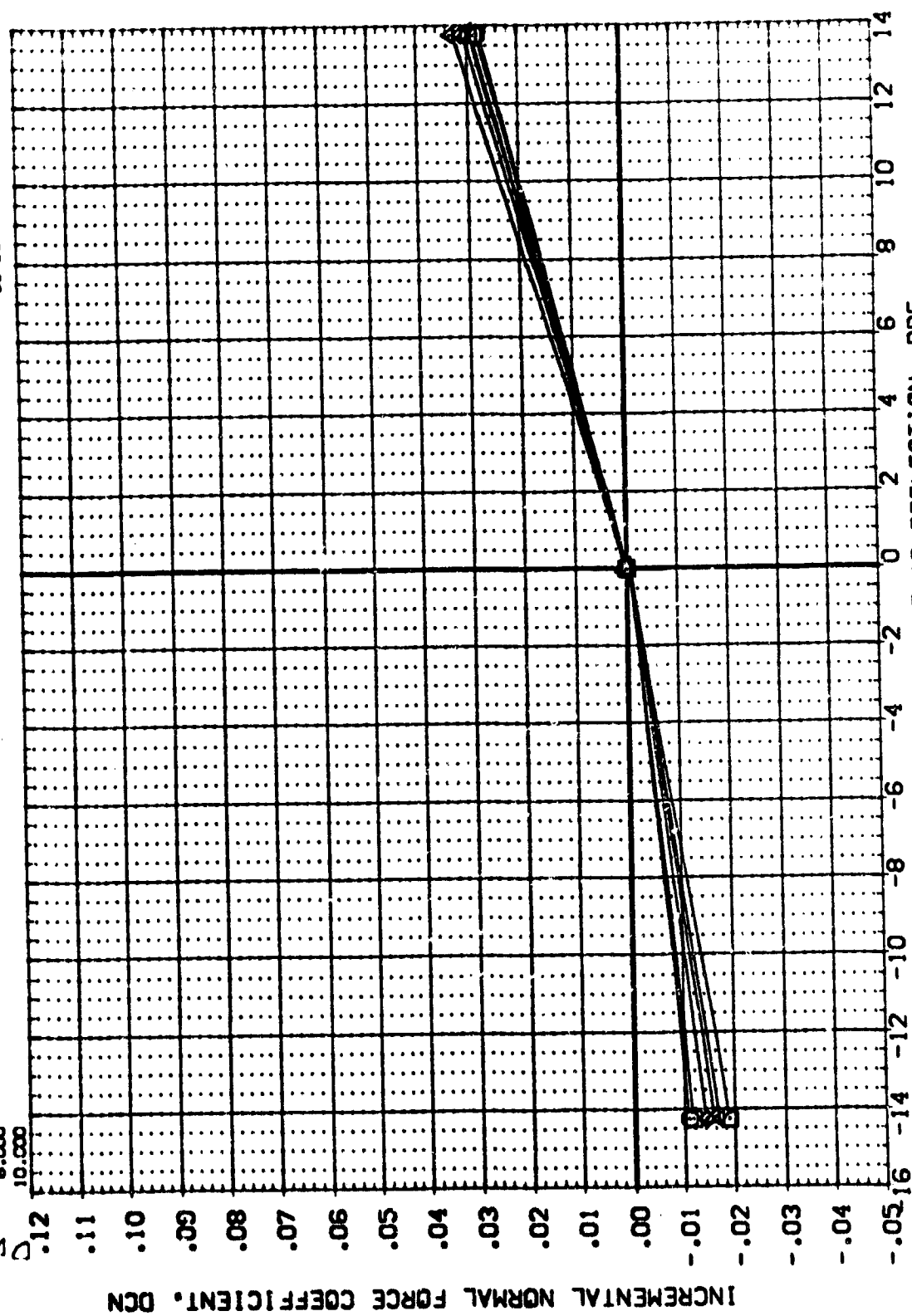


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

MSFC 574(0A48) ORB 139

(L87058)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
12.000	1.200	BETA	.000 DATASET DBF	SREF 2690.0000	SC 1.1
14.000	.000	AILRON	.000 L87058 DBF	LREF 474.8000	SC 1.1
16.000	999.990		.000 L87056 DBF	BRF 936.7000	SC 1.1
18.000				XREF 838.7000	SC 1.1
20.000				YREF .0000	SC 1.1
				ZREF .0000	SC 1.1
				SCALE .0040	

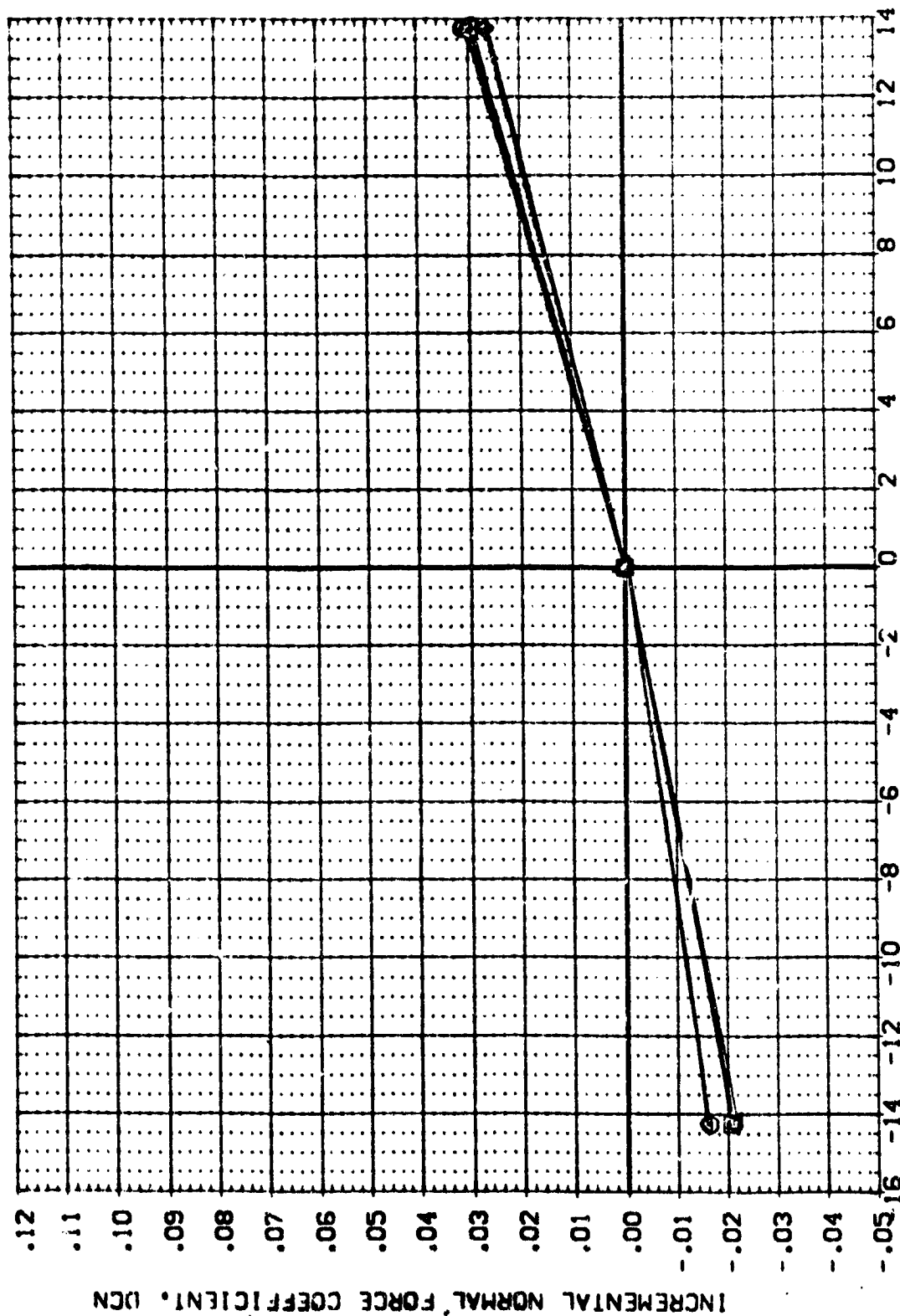


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(L87058)

W5FC 574(0A48) CRB 139

SYNOPSIS		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	.000	MACH	1.950	DBF	DBF	SREF	SC.F.T.
BETA	2.000	ELEVTR	.000	L87058	.000	LREF	474.8000
ATLRON	4.000	SPODRK	999.990	L87048	.000	BREF	936.7000
	6.000					XREF	838.7000
	8.000					YREF	.0000
	10.000					ZREF	.0000
						SCALE	.0040

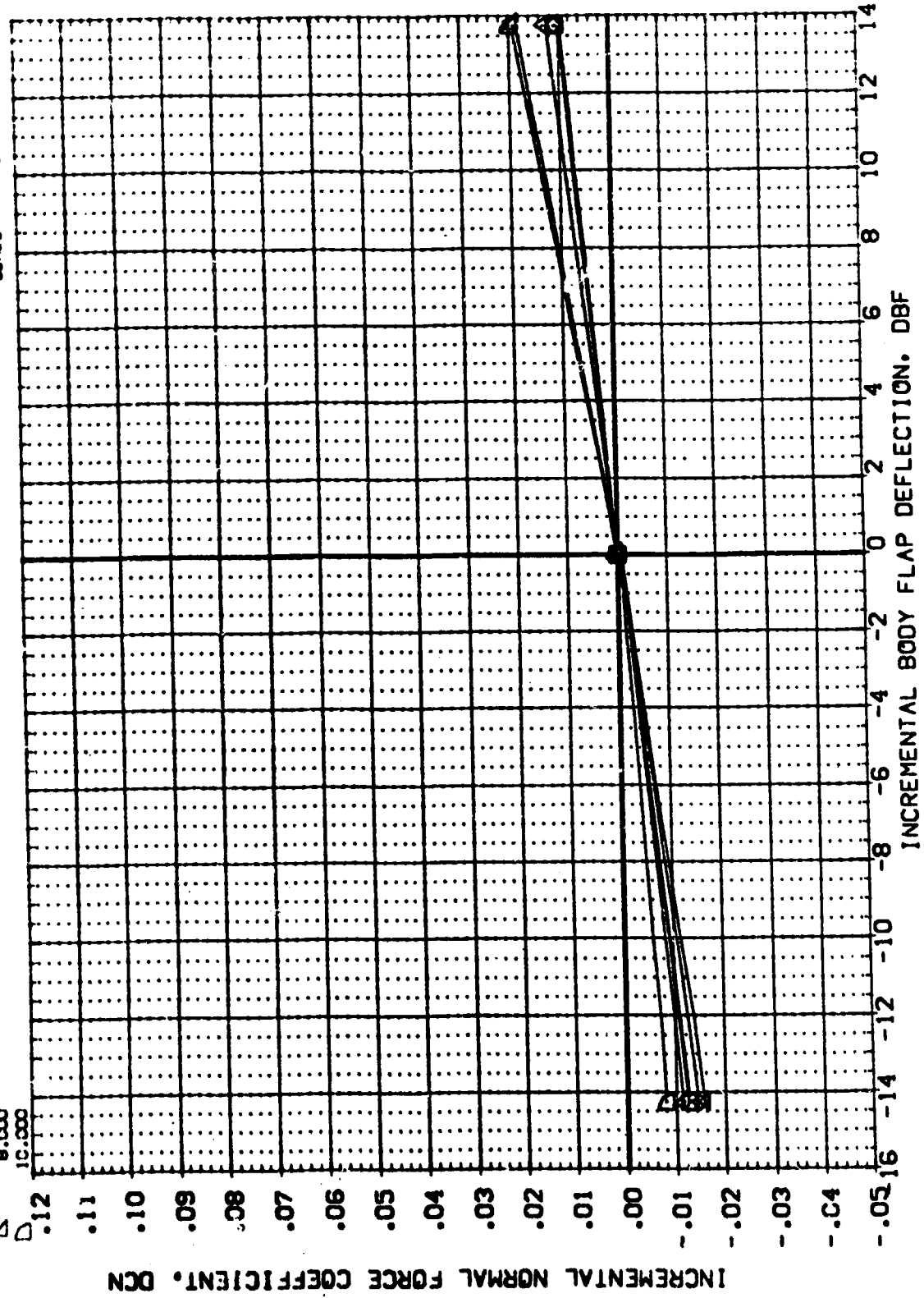


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(L87058)

MS-C 574(CA48) ORB 139

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	.000	DATASET	DBF	DATA SOURCE	DATASET	DBF	SREF	REFERENCE INFORMATION
○	12.000	ELEVTR	1.960	BETA	L87058	-14.750	L87048	.000	LREF	474.8000	SCAL
◇	14.000	SPOBRK	.000	AILRON	L87056	13.750			BRF	936.7000	11111111
△	16.000		999.99C						YMRP	838.7000	
▽	18.000								ZMRP	.0000	
	20.000								SCALE	.0040	

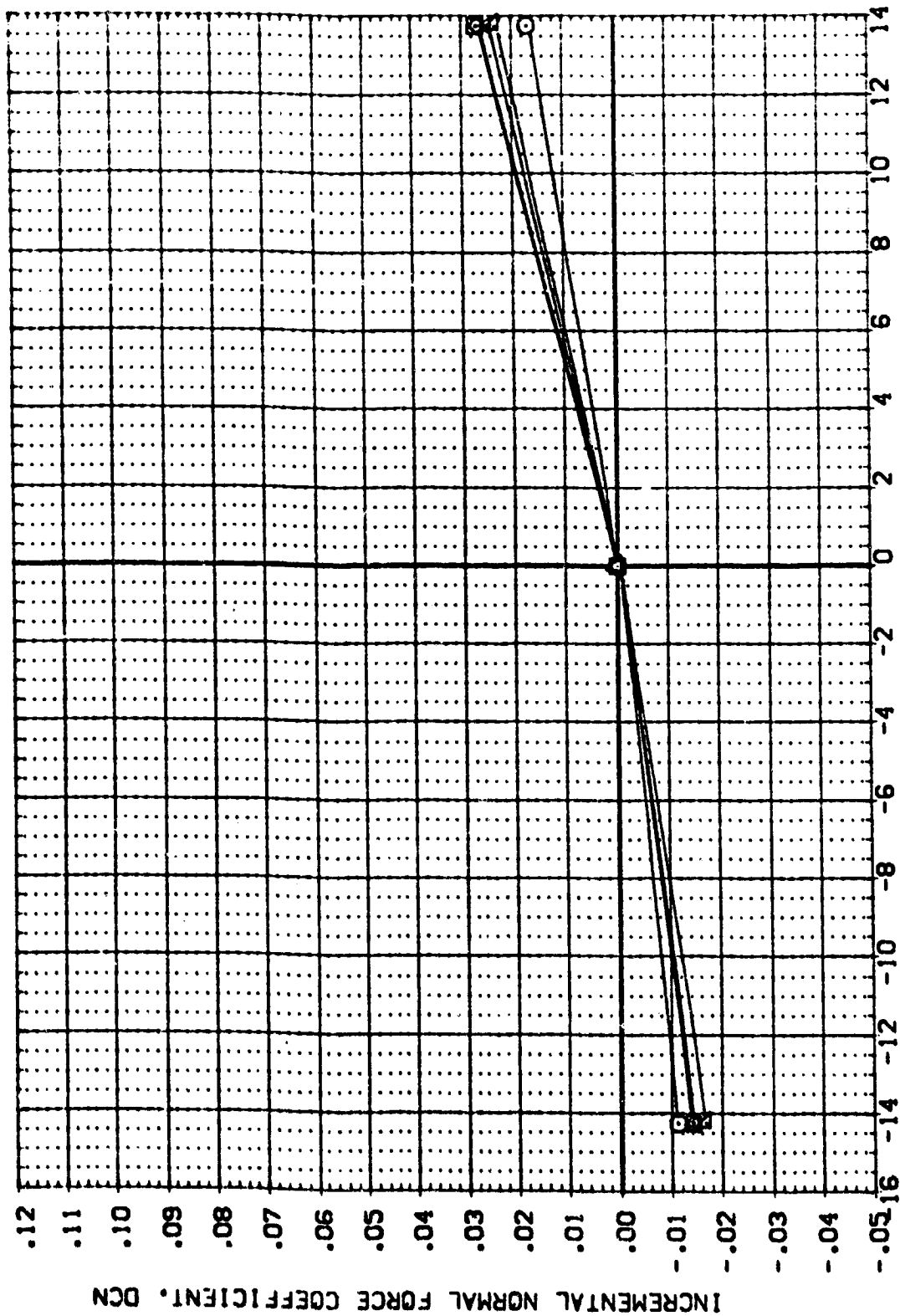


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(L87058)

MSFC 574(0A48) ORB 139

REFERENCE INFORMATION
 SREF 2690.0000
 LREF 474.8000
 BREF 936.7000
 XREF 838.7000
 YREF .0000
 ZREF .0000
 SCALE .0040

DATA SOURCE
 DBF .000
 DATASET L87048
 DBF -14.750
 DATASET L87056
 DBF 13.750

PARAMETRIC VALUES
 MACH 2.950
 BETA .000
 AILRON 999.990

SYMBOL ALPHA
 .000
 2.000
 4.000
 6.000
 8.000
 10.000

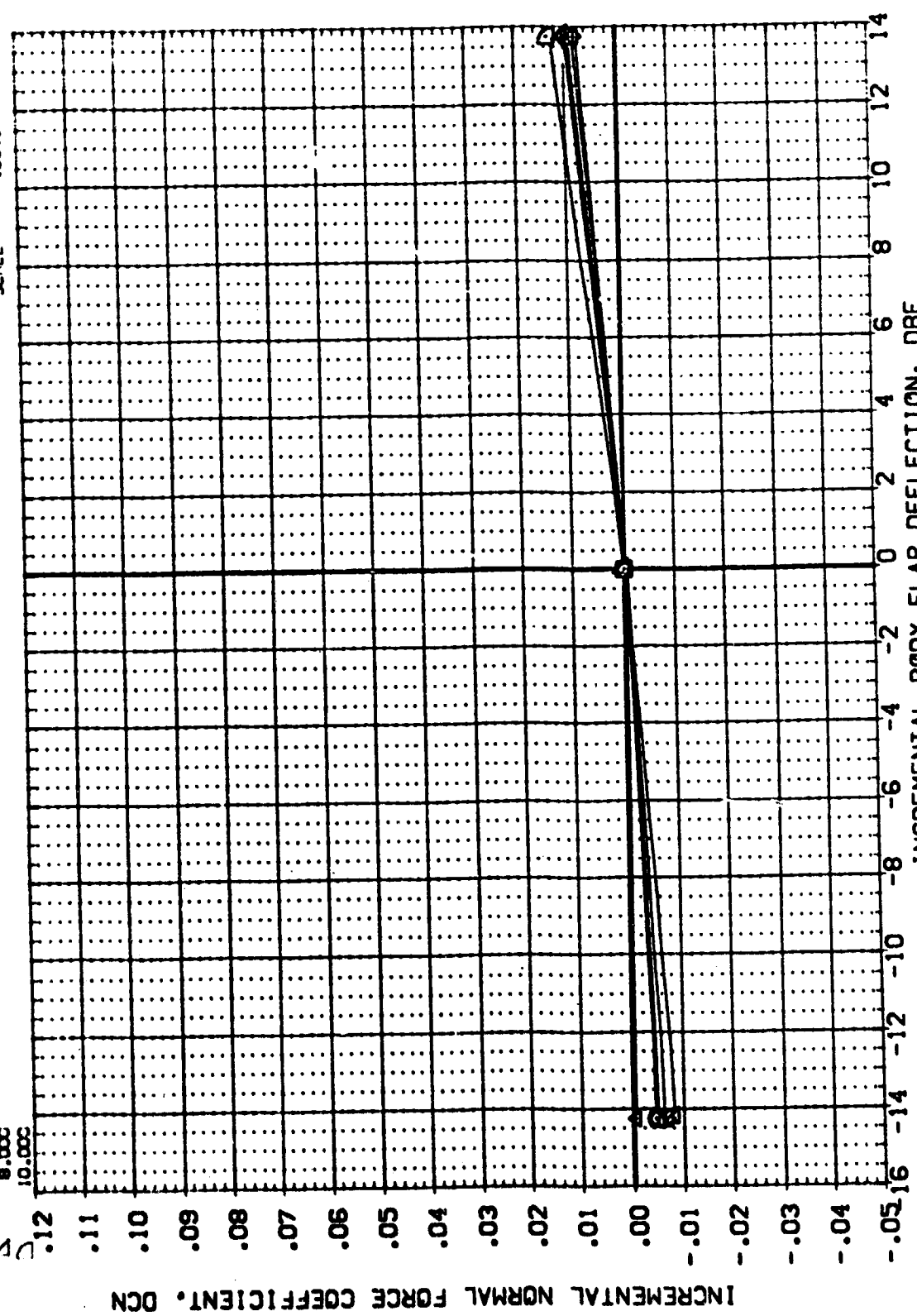


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(L87058)

MSFC 574(0A48) ORB 139

PARAMETRIC VALUES
 ALPHA .000 MACH 4.950 BETA .000
 2.000 ELEVTR .000 AILRON .000
 4.000 SPOBRK 999.990

DATA SOURCE
 DBF .000 DATASET L87058
 DBF -14.250 DATASET L87056
 DBF 13.750

REFERENCE INFORMATION
 SREF 2690.0000 SC.F.
 LREF 474.8000
 BREF 936.7000
 XREF 838.0000
 YREF .0000
 ZREF .0000
 SCALE .0010

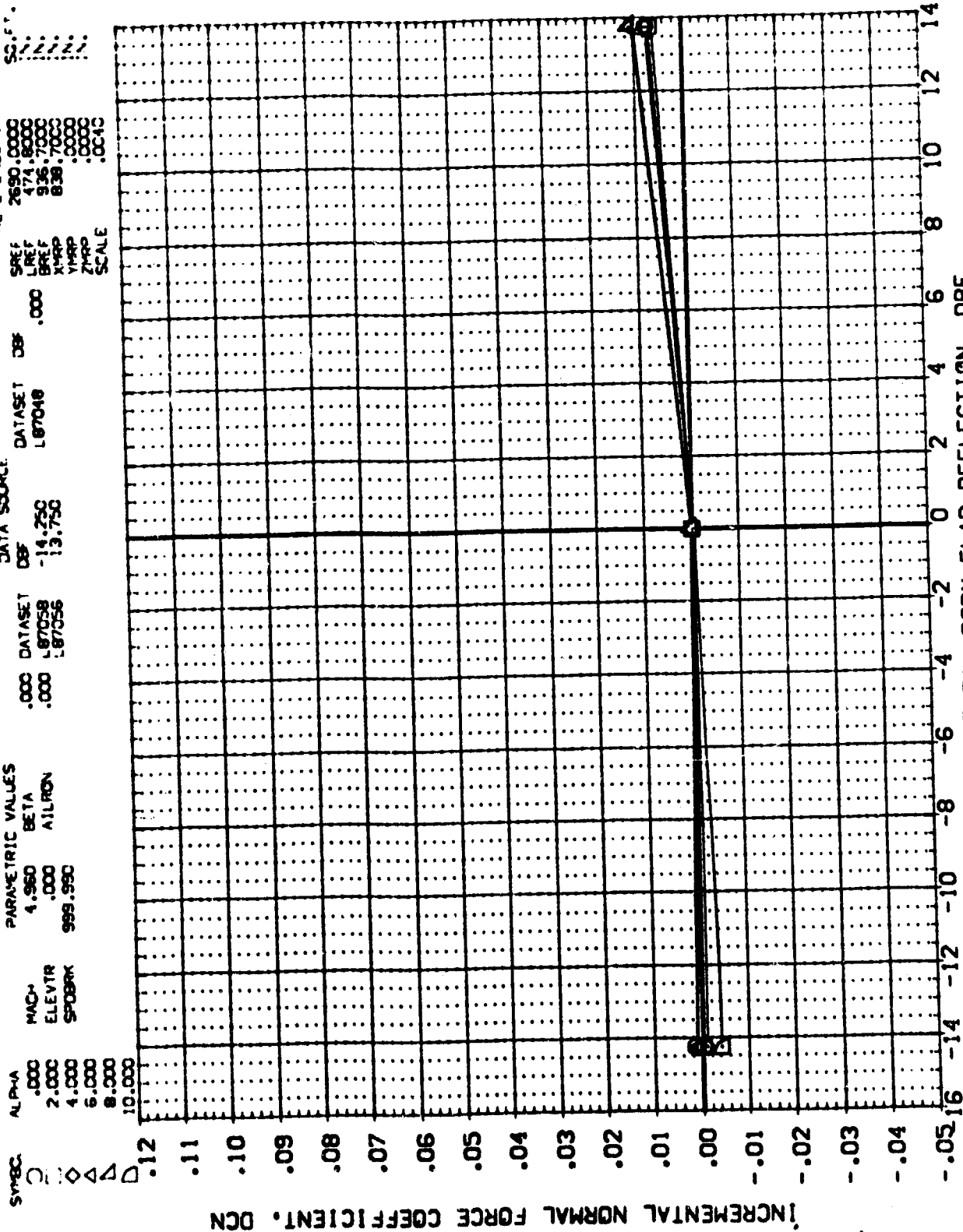


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(L87058)

MSFC 574(0A48) CRB 139

SYMBOL

ALPHA
12.000
14.000
16.000
18.000
20.000

MACH
ELEVTR
SPDRK

PARAMETRIC VALUES
4.960 BETA
.000 AILRON
999.990

DATA SOURCE
DBF

DATASET
L87058
L87056

DBF
-14.250
13.750

DATASET
L87048

DBF
.000
SCALE

REFERENCE INFORMATION
SREF 2690.0000
LREF 474.8000
BREF 936.7000
XMRP 838.7000
YMRP .0000
ZMRP .0000
SCALE .0040

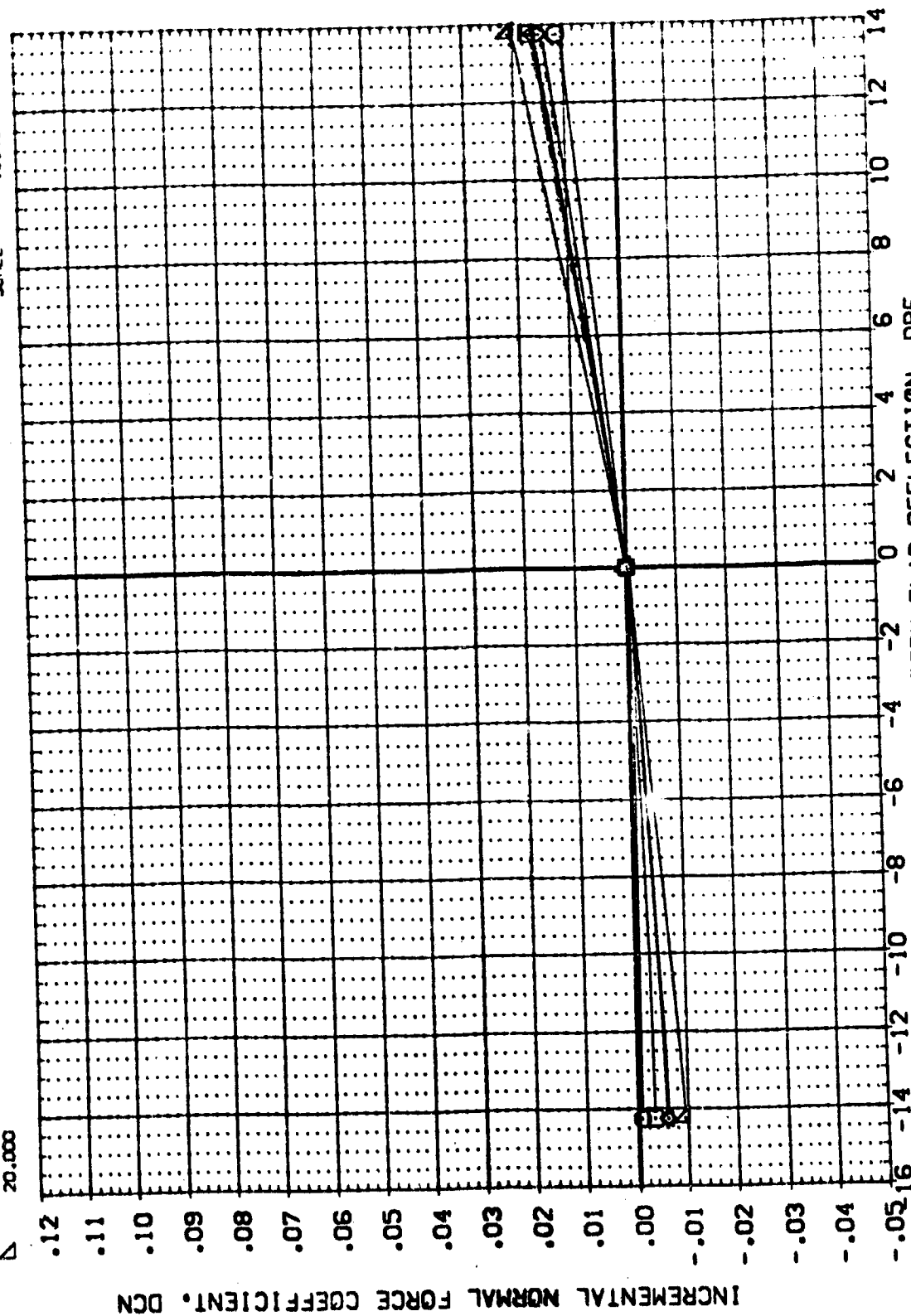


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(L87059)

MSFC 574(0A48) ORB 139

SYMBOL		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	20.000	MACH	2.990	BETA	.000	SREF	2690.0000
ELEVTR	22.000	ELEVTR	.000	ATLRON	.000	LREF	474.8000
STORRK	24.000	STORRK	999.990			BREF	936.7000
	26.000					XARP	838.7000
	28.000					YARP	.0000
	30.000					ZARP	.0000
						SCALC	.0040

SG.F.T.
22222

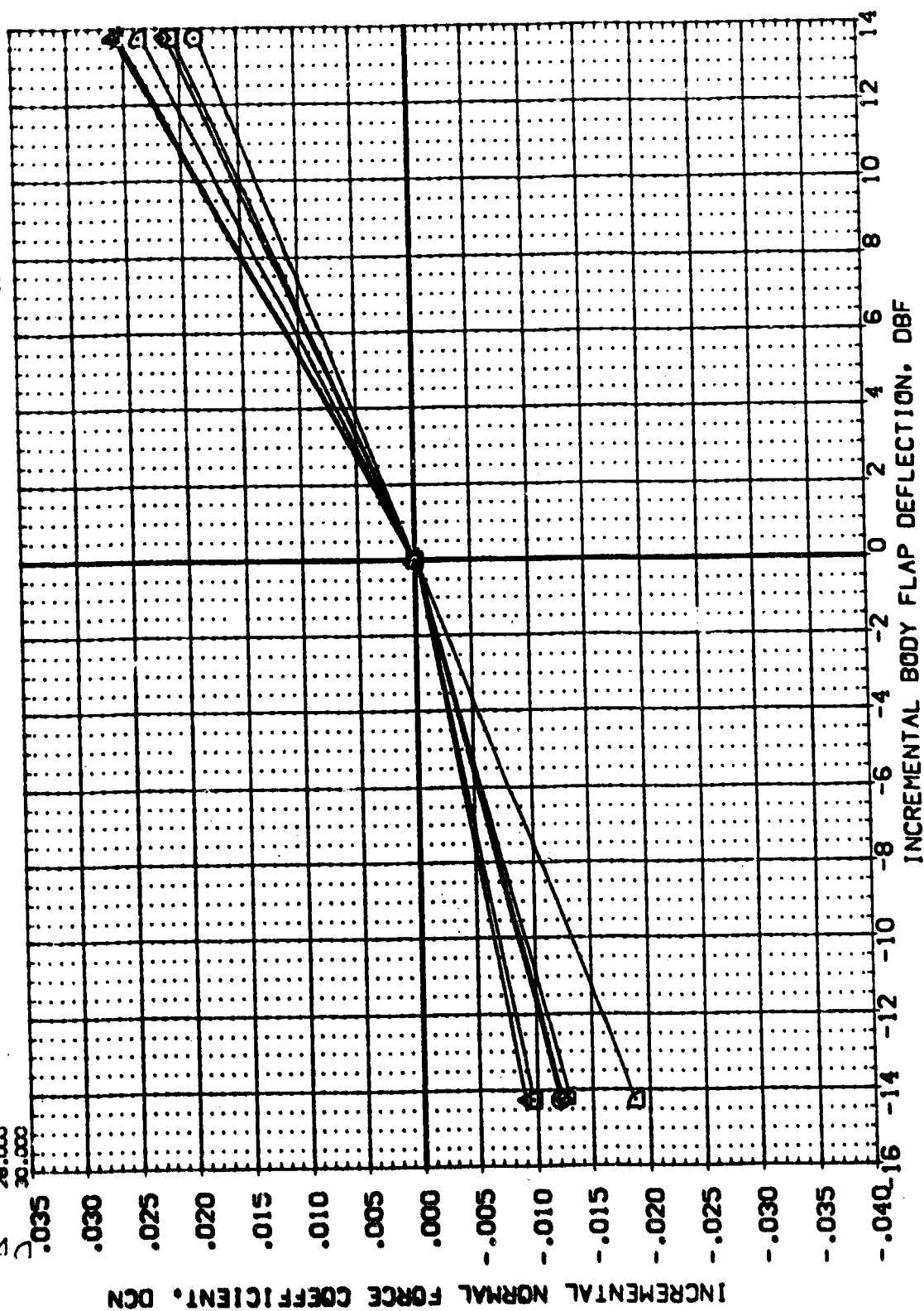


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

MSFC 574(0A48) QRB 139

SUBJECT	SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DBF	DBF	REFERENCE INFORMATION
01	01	32.000	MACH	2.990	BETA	0.000	0.000	2690.0000
02	02	34.000	ELEVTR	.000	ATLIRON	0.000	0.000	174.8000
03	03	36.000	SPOBRK	999.990		0.000	0.000	936.7000
04	04	38.000				0.000	0.000	838.7000
05	05	40.000				0.000	0.000	0.0000
06	06	42.000				0.000	0.000	0.0000
07	07	44.000				0.000	0.000	0.0000
08	08	46.000				0.000	0.000	0.0000
09	09	48.000				0.000	0.000	0.0000
10	10	50.000				0.000	0.000	0.0000
11	11	52.000				0.000	0.000	0.0000
12	12	54.000				0.000	0.000	0.0000
13	13	56.000				0.000	0.000	0.0000
14	14	58.000				0.000	0.000	0.0000
15	15	60.000				0.000	0.000	0.0000
16	16	62.000				0.000	0.000	0.0000
17	17	64.000				0.000	0.000	0.0000
18	18	66.000				0.000	0.000	0.0000
19	19	68.000				0.000	0.000	0.0000
20	20	70.000				0.000	0.000	0.0000
21	21	72.000				0.000	0.000	0.0000
22	22	74.000				0.000	0.000	0.0000
23	23	76.000				0.000	0.000	0.0000
24	24	78.000				0.000	0.000	0.0000
25	25	80.000				0.000	0.000	0.0000
26	26	82.000				0.000	0.000	0.0000
27	27	84.000				0.000	0.000	0.0000
28	28	86.000				0.000	0.000	0.0000
29	29	88.000				0.000	0.000	0.0000
30	30	90.000				0.000	0.000	0.0000
31	31	92.000				0.000	0.000	0.0000
32	32	94.000				0.000	0.000	0.0000
33	33	96.000				0.000	0.000	0.0000
34	34	98.000				0.000	0.000	0.0000
35	35	100.000				0.000	0.000	0.0000

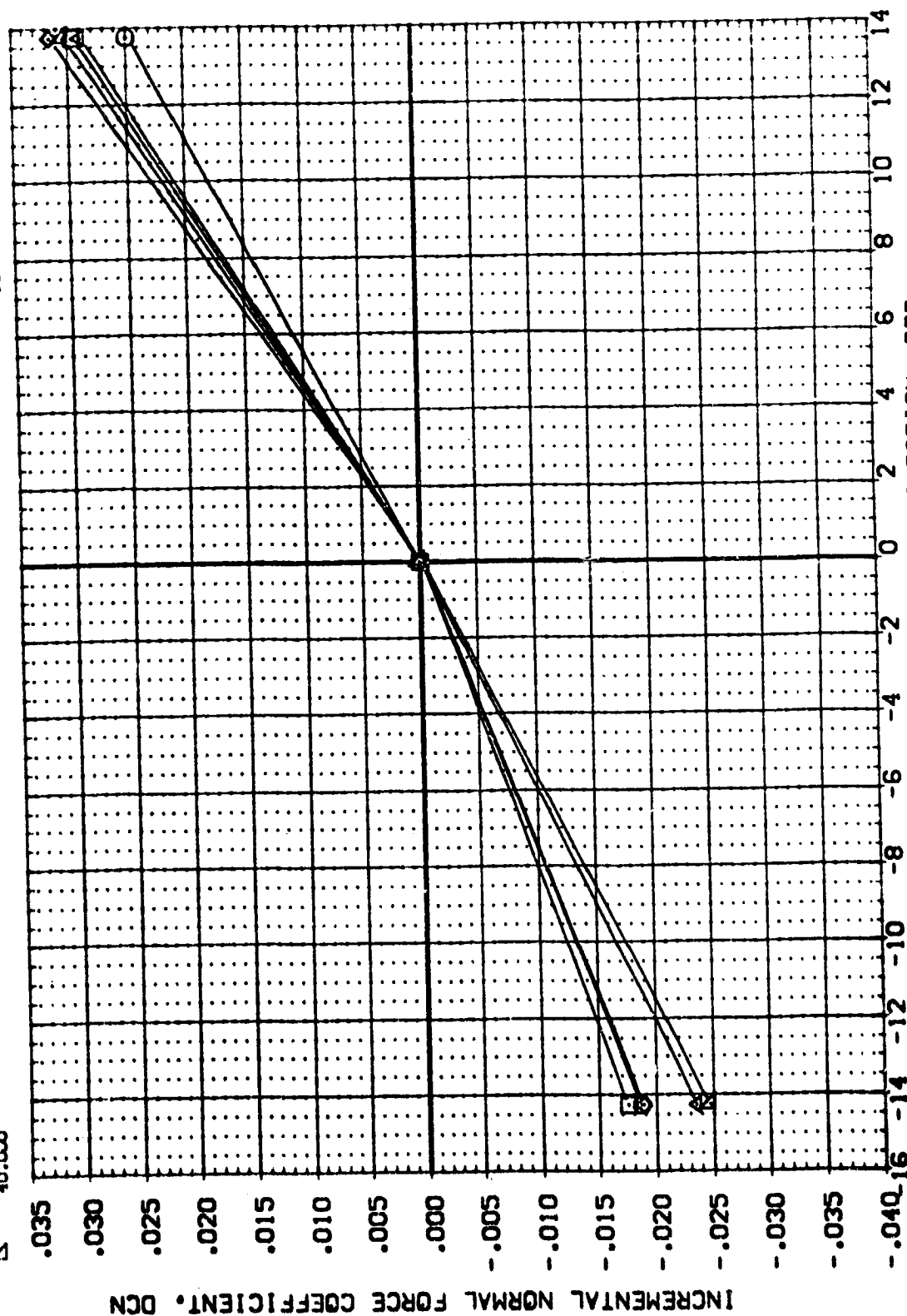


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG	CH	CI	CJ	CK	CL	CM	CN	CO	CP	CQ	CR	CS	CT	CU	CV	CW	CX	CY	CZ	DA	DB	DC	DD	DE	DF	DG	DH	DI	DJ	DK	DL	DM	DN	DO	DP	DQ	DR	DS	DT	DU	DV	DW	DX	DY	DZ	EA	EB	EC	ED	EE	EF	EG	EH	EI	EJ	EK	EL	EM	EN	EO	EP	EQ	ER	ES	ET	EU	EV	EW	EX	EY	EZ	FA	FB	FC	FD	FE	FF	FG	FH	FI	FJ	FK	FL	FM	FN	FO	FP	FQ	FR	FS	FT	FU	FV	FW	FX	FY	FZ	GA	GB	GC	GD	GE	GF	GG	GH	GI	GJ	GK	GL	GM	GN	GO	GP	GQ	GR	GS	GT	GU	GV	GW	GX	GY	GZ	HA	HB	HC	HD	HE	HF	HG	HH	HI	HJ	HK	HL	HM	HN	HO	HP	HQ	HR	HS	HT	HU	HV	HW	HX	HY	HZ	IA	IB	IC	ID	IE	IF	IG	IH	II	IJ	IK	IL	IM	IN	IO	IP	IQ	IR	IS	IT	IU	IV	IW	IX	IY	IZ	JA	JB	JC	JD	JE	JF	JG	JH	JI	IJ	JK	JL	JM	JN	JO	JP	JQ	JR	JS	JT	JU	JV	JW	JX	JY	JZ	KA	KB	KC	KD	KE	KF	KG	KH	KI	KJ	KK	KL	KM	KN	KO	KP	KQ	KR	KS	KT	KU	KV	KW	KX	KY	KZ	LA	LB	LC	LD	LE	LF	LG	LH	LI	LJ	LK	LL	LM	LN	LO	LP	LQ	LR	LS	LT	LU	LV	LW	LX	LY	LZ	MA	MB	MC	MD	ME	MF	MG	MH	MI	MJ	MK	ML	MM	MN	MO	MP	MQ	MR	MS	MT	MU	MV	MW	MX	MY	MZ	NA	NB	NC	ND	NE	NF	NG	NH	NI	NJ	NK	NL	NM	NN	NO	NP	NQ	NR	NS	NT	NU	NV	NW	NX	NY	NZ	OA	OB	OC	OD	OE	OF	OG	OH	OI	OJ	OK	OL	OM	ON	OO	OP	OQ	OR	OS	OT	OU	OV	OW	OX	OY	OZ	PA	PB	PC	PD	PE	PF	PG	PH	PI	PJ	PK	PL	PM	PN	PO	PP	PQ	PR	PS	PT	PU	PV	PW	PX	PY	PZ	QA	QB	QC	QD	QE	QF	QG	QH	QI	QJ	QK	QL	QM	QN	QO	QP	QQ	QR	QS	QT	QU	QV	QW	QX	QY	QZ	RA	RB	RC	RD	RE	RF	RG	RH	RI	RJ	RK	RL	RM	RN	RO	RP	RQ	RR	RS	RT	RU	RV	RW	RX	RY	RZ	SA	SB	SC	SD	SE	SF	SG	SH	SI	SJ	SK	SL	SM	SN	SO	SP	SQ	SR	SS	ST	SU	SV	SW	SX	SY	SZ	TA	TB	TC	TD	TE	TF	TG	TH	TI	TJ	TK	TL	TM	TN	TO	TP	TQ	TR	TS	TU	<th>TW</th> <th>TX</th> <th>TY</th> <th>TZ</th> <th>UA</th> <th>UB</th> <th>UC</th> <th>UD</th> <th>UE</th> <th>UF</th> <th>UG</th> <th>UH</th> <th>UI</th> <th>UJ</th> <th>UK</th> <th>UL</th> <th>UM</th> <th>UN</th> <th>UO</th> <th>UP</th> <th>UQ</th> <th>UR</th> <th>US</th> <th>UT</th> <th>UU</th> <th>UV</th> <th>UW</th> <th>UX</th> <th>UY</th> <th>UZ</th> <th>VA</th> <th>VB</th> <th>VC</th> <th>VD</th> <th>VE</th> <th>VF</th> <th>VG</th> <th>VH</th> <th>VI</th> <th>VJ</th> <th>VK</th> <th>VL</th> <th>VM</th> <th>VN</th> <th>VO</th> <th>VP</th> <th>VQ</th> <th>VR</th> <th>VS</th> <th>VT</th> <th>VU</th> <th>VV</th> <th>VW</th> <th>VX</th> <th>VY</th> <th>VZ</th> <th>WA</th> <th>WB</th> <th>WC</th> <th>WD</th> <th>WE</th> <th>WF</th> <th>WG</th> <th>WH</th> <th>WI</th> <th>WJ</th> <th>WK</th> <th>WL</th> <th>WM</th> <th>WN</th> <th>WO</th> <th>WP</th> <th>WQ</th> <th>WR</th> <th>WS</th> <th>WT</th> <th>WU</th> <th>WV</th> <th>WW</th> <th>WX</th> <th>WY</th> <th>WZ</th> <th>XA</th> <th>XB</th> <th>XC</th> <th>XD</th> <th>XE</th> <th>XF</th> <th>XG</th> <th>XH</th> <th>XI</th> <th>XJ</th> <th>XK</th> <th>XL</th> <th>XM</th> <th>XN</th> <th> XO</th> <th>XP</th> <th>XQ</th> <th>XR</th> <th>XS</th> <th>XT</th> <th>XU</th> <th>XV</th> <th>XW</th> <th>XX</th> <th>XY</th> <th>XZ</th> <th>YA</th> <th>YB</th> <th>YC</th> <th>YD</th> <th>YE</th> <th>YF</th> <th>YG</th> <th>YH</th> <th>YI</th> <th>YJ</th> <th>YK</th> <th>YL</th> <th>YM</th> <th>YN</th> <th>YO</th> <th>YP</th> <th>YQ</th> <th>YR</th> <th>YS</th> <th>YT</th> <th>YU</th> <th>YV</th> <th>YW</th> <th>YX</th> <th>YZ</th> <th>ZA</th> <th>ZB</th> <th>ZC</th> <th>ZD</th> <th>ZE</</th>	TW	TX	TY	TZ	UA	UB	UC	UD	UE	UF	UG	UH	UI	UJ	UK	UL	UM	UN	UO	UP	UQ	UR	US	UT	UU	UV	UW	UX	UY	UZ	VA	VB	VC	VD	VE	VF	VG	VH	VI	VJ	VK	VL	VM	VN	VO	VP	VQ	VR	VS	VT	VU	VV	VW	VX	VY	VZ	WA	WB	WC	WD	WE	WF	WG	WH	WI	WJ	WK	WL	WM	WN	WO	WP	WQ	WR	WS	WT	WU	WV	WW	WX	WY	WZ	XA	XB	XC	XD	XE	XF	XG	XH	XI	XJ	XK	XL	XM	XN	XO	XP	XQ	XR	XS	XT	XU	XV	XW	XX	XY	XZ	YA	YB	YC	YD	YE	YF	YG	YH	YI	YJ	YK	YL	YM	YN	YO	YP	YQ	YR	YS	YT	YU	YV	YW	YX	YZ	ZA	ZB	ZC	ZD	ZE</
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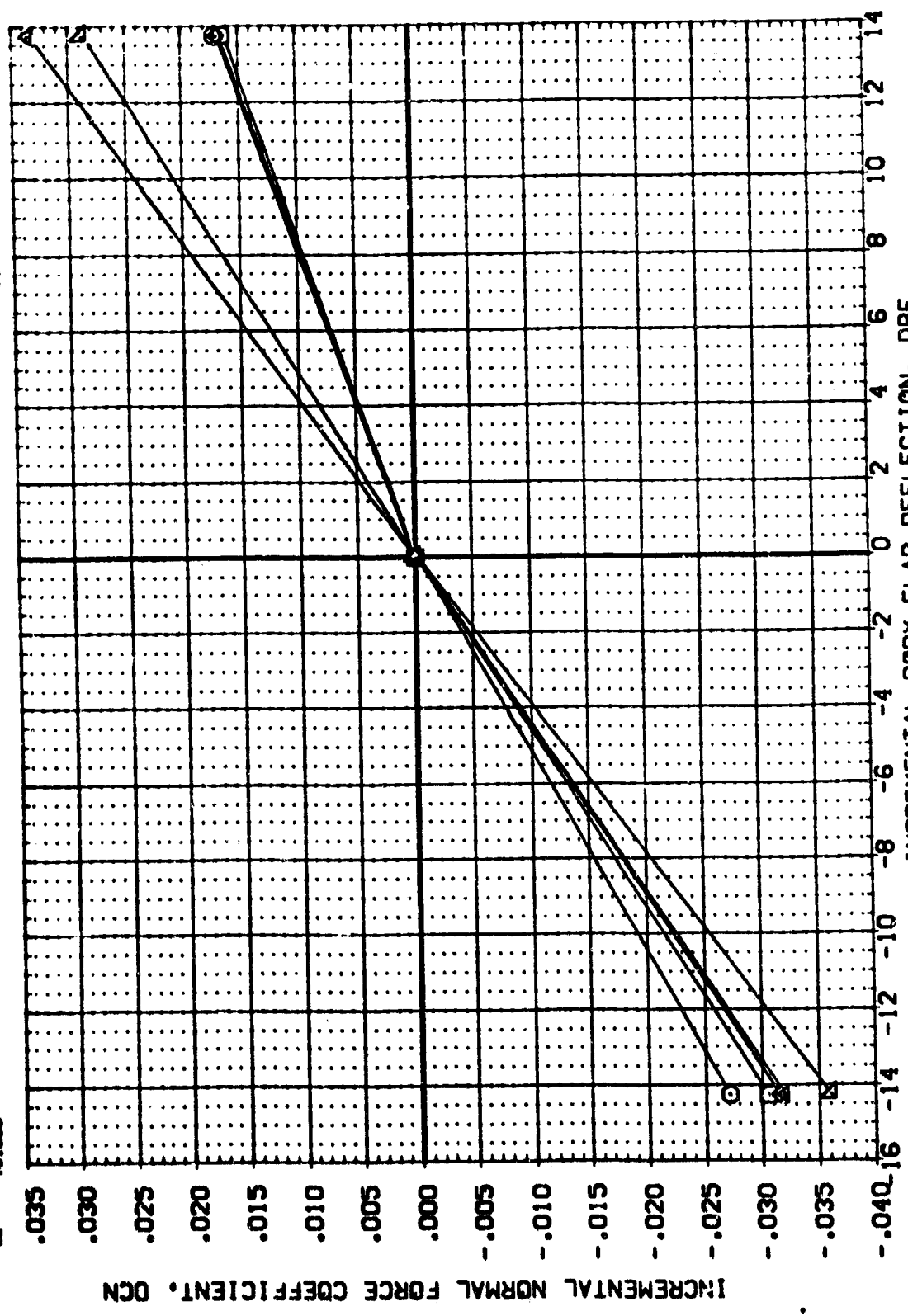


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

YSFC 574(0A48) ORB 139

(*87058)

REFERENCE INFORMATION
 SREF 269C.000C
 LREF 474.800C
 BREF 936.700C
 XREF 838.000C
 YREF 1400.000C
 ZREF 1000.000C
 SCALE 1000

DATA SOURCE
 DBF 14.250
 DBF 13.750

DATASET
 87058
 87058

PARAMETRIC VALUES
 BETA
 AIR ON

MACH
 ELEVTR
 SPDRK

ALPHA
 .000
 2.000
 4.000
 6.000
 8.000
 10.000

SYMBOL
 10
 10
 10
 10
 10
 10

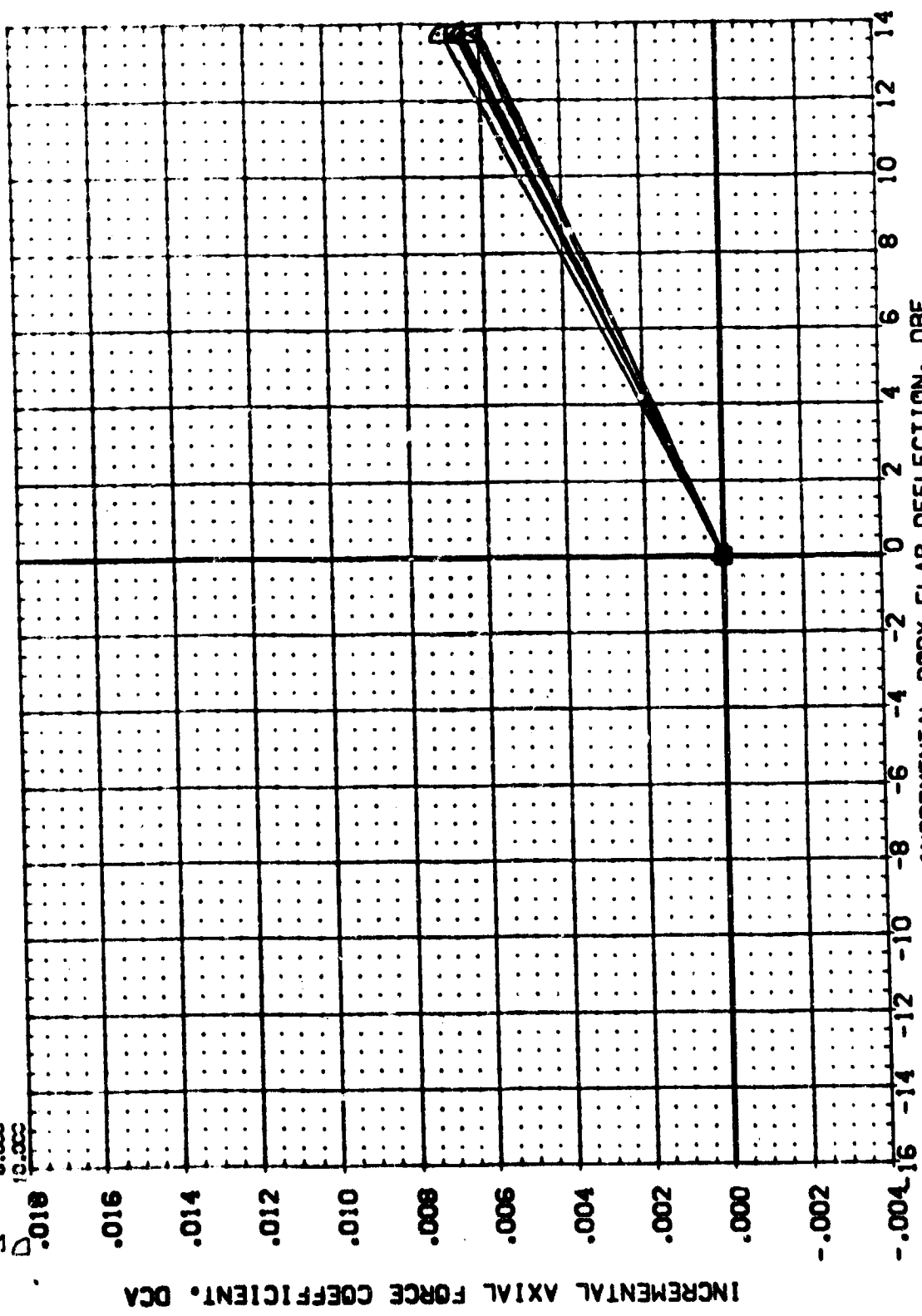


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(#87058)

VSFC 574(0A48) ORB 139

SYMBOL		ALPHA		MACH		PARAMETRIC VALUES		DATA SOURCE		DATASET		DBF		REFERENCE INFORMATION	
□	○	12.000	.500	.500	BETA	.000	VSFC 574(0A48)	.000	VSFC 574(0A48)	.000	VSFC 574(0A48)	.000	VSFC 574(0A48)	VSFC 574(0A48)	
△	◇	14.000	.500	.500	ATLON	.000	VSFC 574(0A48)	.000	VSFC 574(0A48)	.000	VSFC 574(0A48)	.000	VSFC 574(0A48)	VSFC 574(0A48)	
		16.000	.500	.500	ATLON	.000	VSFC 574(0A48)	.000	VSFC 574(0A48)	.000	VSFC 574(0A48)	.000	VSFC 574(0A48)	VSFC 574(0A48)	
		18.000	.500	.500	ATLON	.000	VSFC 574(0A48)	.000	VSFC 574(0A48)	.000	VSFC 574(0A48)	.000	VSFC 574(0A48)	VSFC 574(0A48)	
		20.000	.500	.500	ATLON	.000	VSFC 574(0A48)	.000	VSFC 574(0A48)	.000	VSFC 574(0A48)	.000	VSFC 574(0A48)	VSFC 574(0A48)	

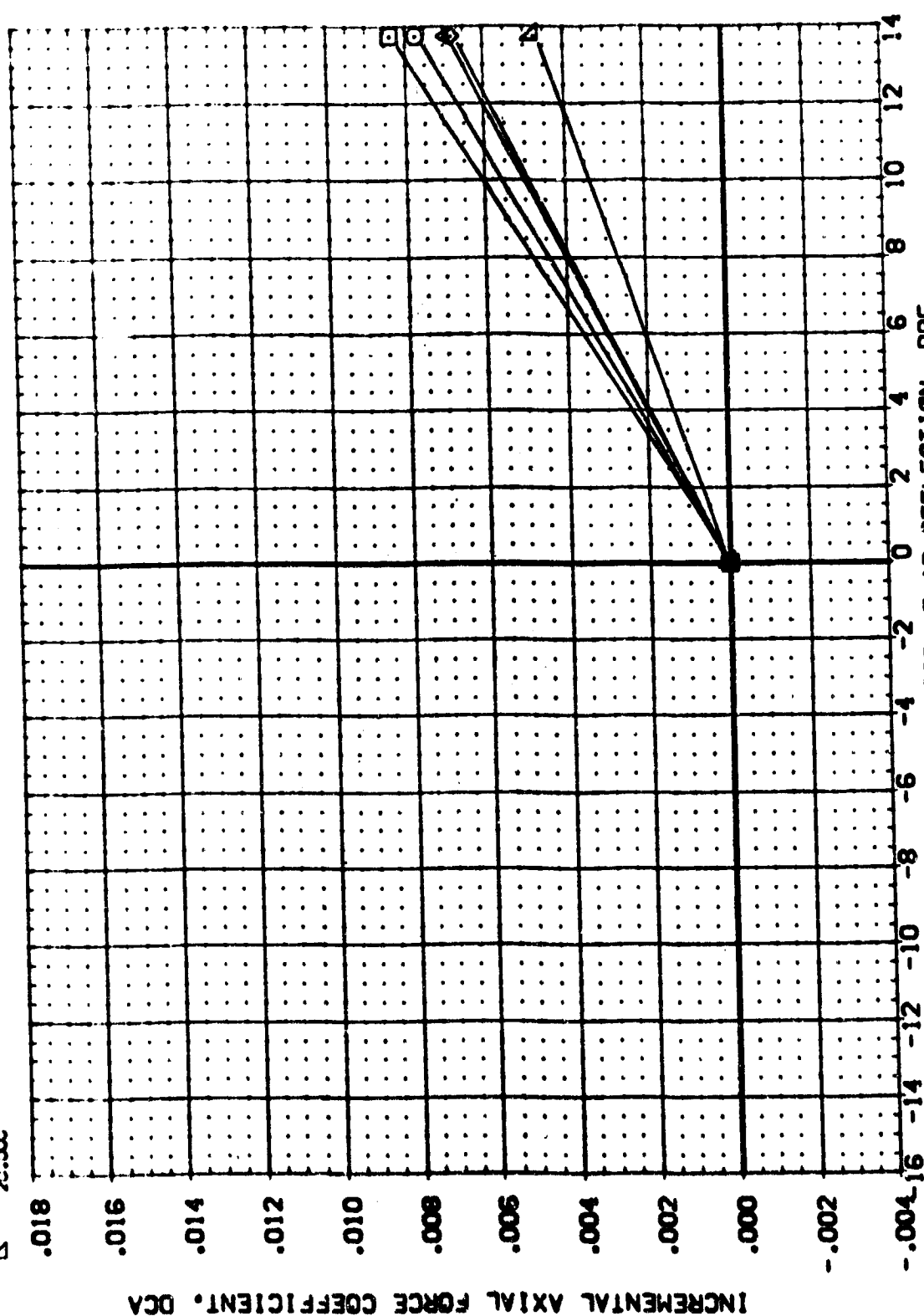


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(*87058)

MSFC 574(0A48) ORB 139

SYMBOL ALPHA
 .000
 2.000
 4.000
 6.000
 8.000
 10.000

PARAMETRIC VALUES
 MAC= .500
 ELEV= .000
 SPDR= 999.999

.000 DATASET
 .000 (*87058)
 .000 (87058)

DATA SOURCE
 DBF -14.250
 DBF 13.750

DATASET DBF
 L87048 .000

REFERENCE INFORMATION
 SREF 265C.0000
 LREF 474.8000
 BREF 936.7000
 XREF 838.7000
 YREF .0000
 ZREF .0000
 SCALE .0040

INCREMENTAL AXIAL FORCE COEFFICIENT, DCA

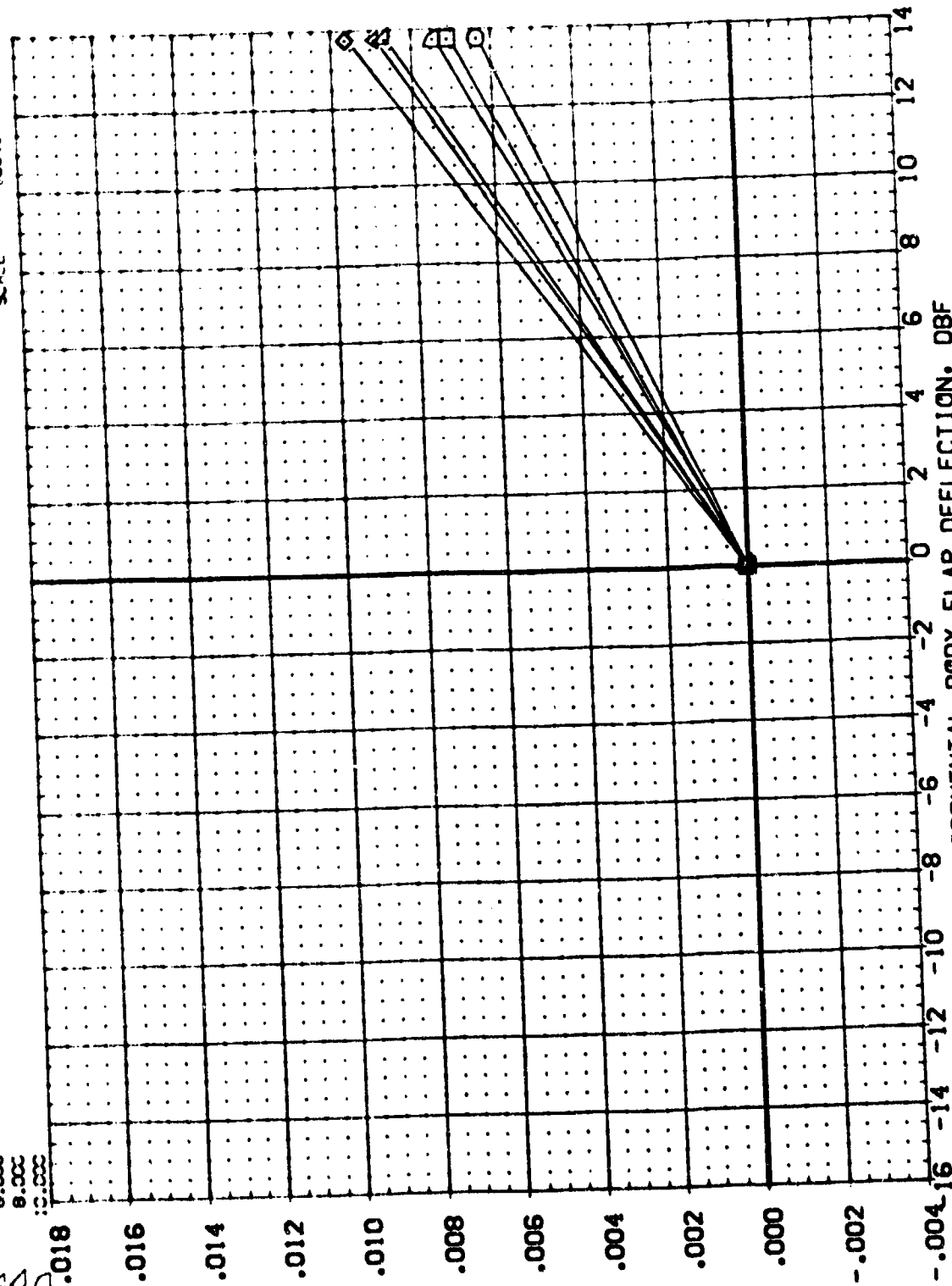


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(#87058)

VSFC 574(0A48) ORB 139

REFERENCE INFORMATION
 SREF 2690.0000
 LREF 474.8000
 XREF 936.7000
 YREF 838.7000
 ZREF 0.0000
 SCALE 0.0040

DATA SOURCE
 DBF L87048
 DBF -14.250
 DBF 13.750

DATASET
 DBF .000
 DATASET #87058
 DATASET L87056

PARAMETRIC VALUES
 SOC BETA
 ALLRON
 999.990

WACH
 ELEVTR
 SPORAK

ALPHA
 12.000
 14.000
 16.000
 18.000
 20.000

SV-BC
 12.000
 14.000
 16.000
 18.000
 20.000

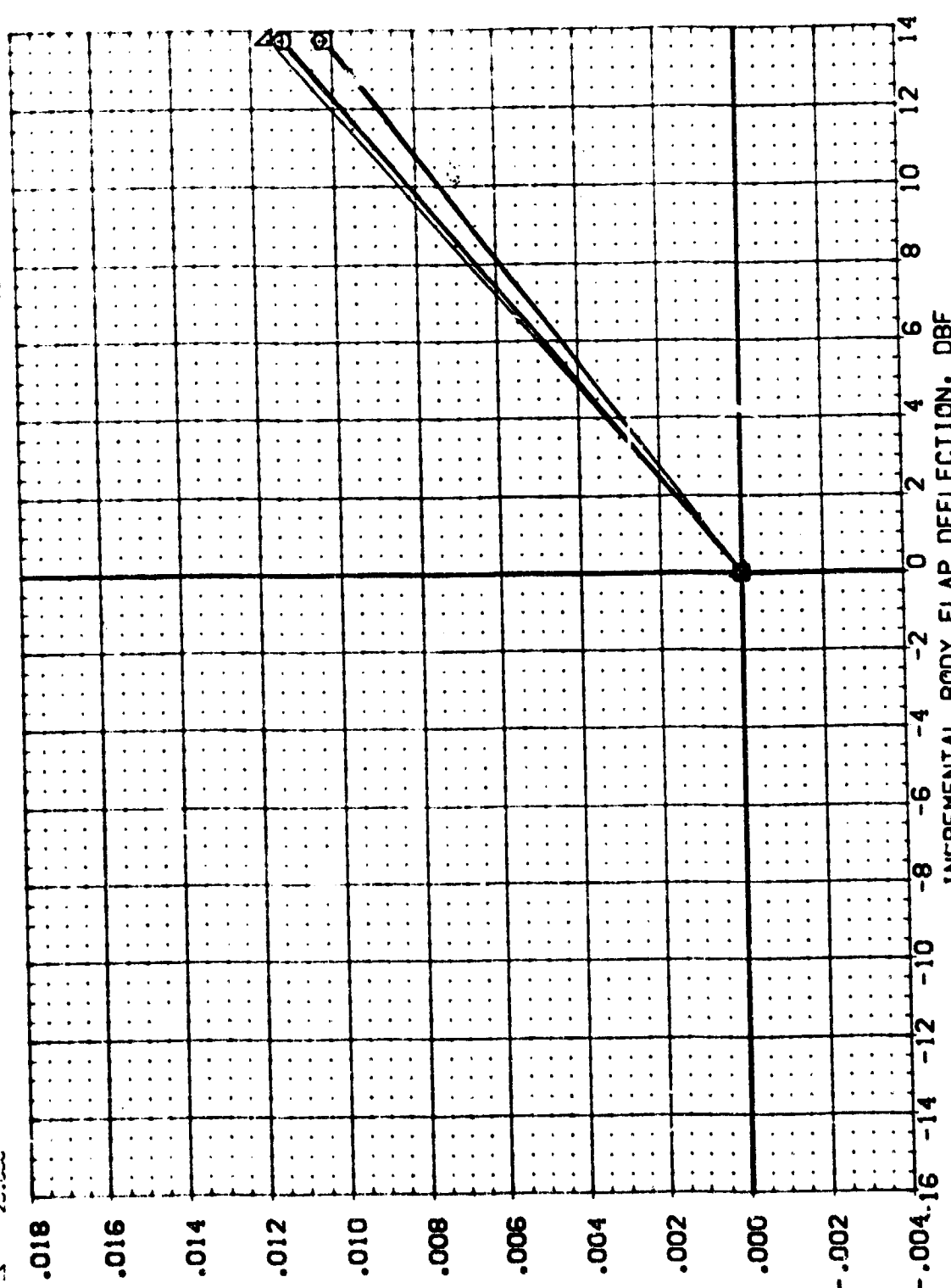


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(#87058)

VSFC 574(CA48) CR8 139

SYMBOL	ALPHA	MACH	ELEVTR	SP33RK	PARAM. RIC VALUES	.000	1.200	BETA	.000	4.14RN	DATA SOURCE	DATASET	DBF	.000	87048	REFERENCE INFORMATION
0.018	.000	2.000	.000	999.990	VSFC	.000	87058	-19.250	.000	87048	VSFC	.000	87048	VSFC	VSFC	VSFC
0.016	4.000	.000	.000	.000	VSFC	.000	87058	.000	.000	87048	VSFC	.000	87048	VSFC	VSFC	VSFC
0.014	6.000	.000	.000	.000	VSFC	.000	87058	.000	.000	87048	VSFC	.000	87048	VSFC	VSFC	VSFC
0.012	8.000	.000	.000	.000	VSFC	.000	87058	.000	.000	87048	VSFC	.000	87048	VSFC	VSFC	VSFC
0.010	10.000	.000	.000	.000	VSFC	.000	87058	.000	.000	87048	VSFC	.000	87048	VSFC	VSFC	VSFC
0.008	12.000	.000	.000	.000	VSFC	.000	87058	.000	.000	87048	VSFC	.000	87048	VSFC	VSFC	VSFC
0.006	14.000	.000	.000	.000	VSFC	.000	87058	.000	.000	87048	VSFC	.000	87048	VSFC	VSFC	VSFC
0.004	16.000	.000	.000	.000	VSFC	.000	87058	.000	.000	87048	VSFC	.000	87048	VSFC	VSFC	VSFC
0.002	18.000	.000	.000	.000	VSFC	.000	87058	.000	.000	87048	VSFC	.000	87048	VSFC	VSFC	VSFC
0.000	20.000	.000	.000	.000	VSFC	.000	87058	.000	.000	87048	VSFC	.000	87048	VSFC	VSFC	VSFC
-.002	22.000	.000	.000	.000	VSFC	.000	87058	.000	.000	87048	VSFC	.000	87048	VSFC	VSFC	VSFC
-.004	24.000	.000	.000	.000	VSFC	.000	87058	.000	.000	87048	VSFC	.000	87048	VSFC	VSFC	VSFC
-.006	26.000	.000	.000	.000	VSFC	.000	87058	.000	.000	87048	VSFC	.000	87048	VSFC	VSFC	VSFC
-.008	28.000	.000	.000	.000	VSFC	.000	87058	.000	.000	87048	VSFC	.000	87048	VSFC	VSFC	VSFC
-.010	30.000	.000	.000	.000	VSFC	.000	87058	.000	.000	87048	VSFC	.000	87048	VSFC	VSFC	VSFC
-.012	32.000	.000	.000	.000	VSFC	.000	87058	.000	.000	87048	VSFC	.000	87048	VSFC	VSFC	VSFC
-.014	34.000	.000	.000	.000	VSFC	.000	87058	.000	.000	87048	VSFC	.000	87048	VSFC	VSFC	VSFC
-.016	36.000	.000	.000	.000	VSFC	.000	87058	.000	.000	87048	VSFC	.000	87048	VSFC	VSFC	VSFC
-.018	38.000	.000	.000	.000	VSFC	.000	87058	.000	.000	87048	VSFC	.000	87048	VSFC	VSFC	VSFC

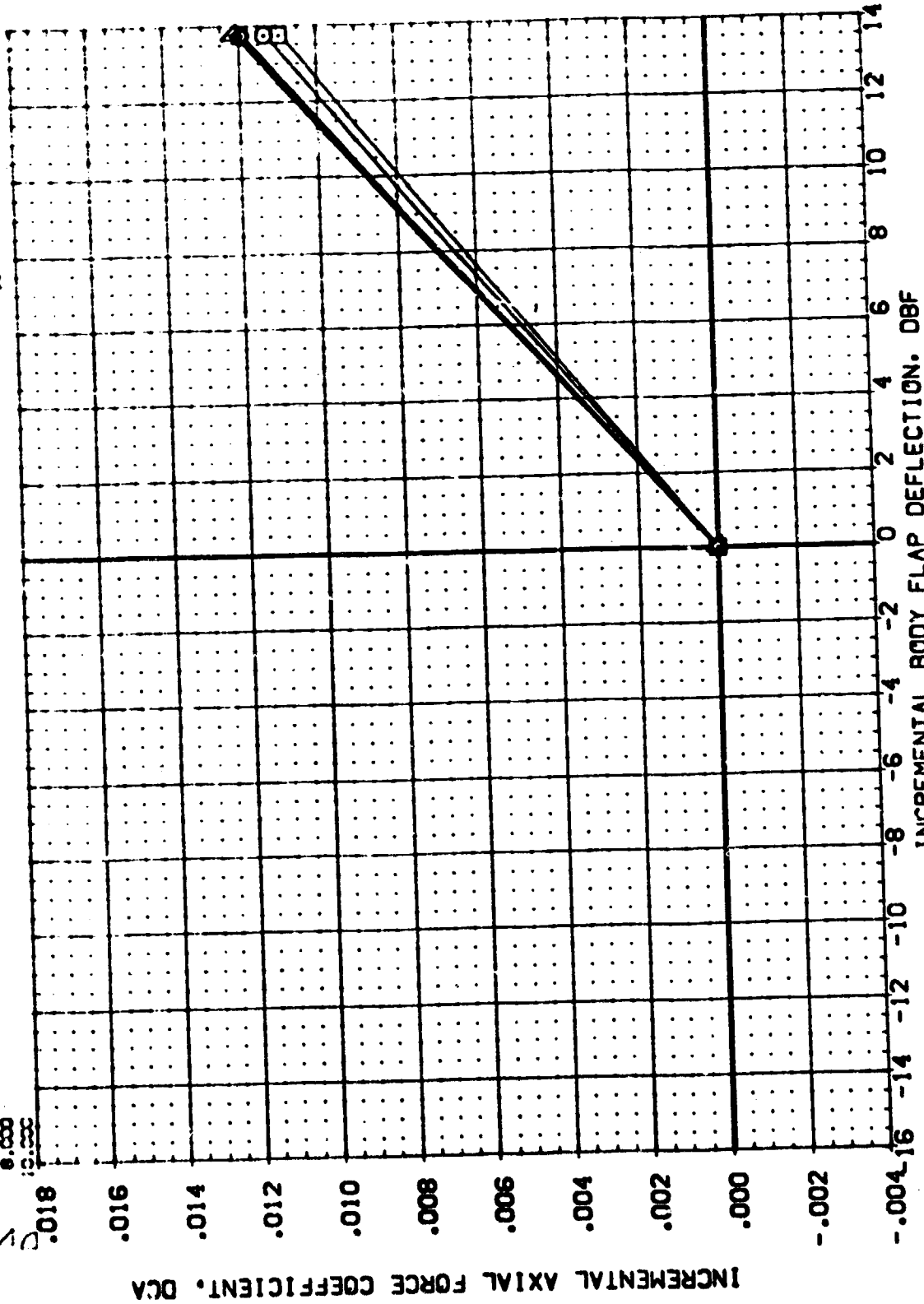


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(#87058)

VSFC 574(CA48) ORB 139

SYNCH	ALPHA	VACH	PARAMETRIC VALUES	DATA SOURCE	DATA SET	DBF	REF	REFERENCE INFORMATION
1.000	1.200	BE A	VSFC 574(CA48)	VSFC 574(CA48)	VSFC 574(CA48)	VSFC 574(CA48)	VSFC 574(CA48)	VSFC 574(CA48)
4.000	1.000	ELEVTR	VSFC 574(CA48)	VSFC 574(CA48)	VSFC 574(CA48)	VSFC 574(CA48)	VSFC 574(CA48)	VSFC 574(CA48)
16.000	999.999	SPDBR	VSFC 574(CA48)	VSFC 574(CA48)	VSFC 574(CA48)	VSFC 574(CA48)	VSFC 574(CA48)	VSFC 574(CA48)
8.000			VSFC 574(CA48)	VSFC 574(CA48)	VSFC 574(CA48)	VSFC 574(CA48)	VSFC 574(CA48)	VSFC 574(CA48)
20.000			VSFC 574(CA48)	VSFC 574(CA48)	VSFC 574(CA48)	VSFC 574(CA48)	VSFC 574(CA48)	VSFC 574(CA48)

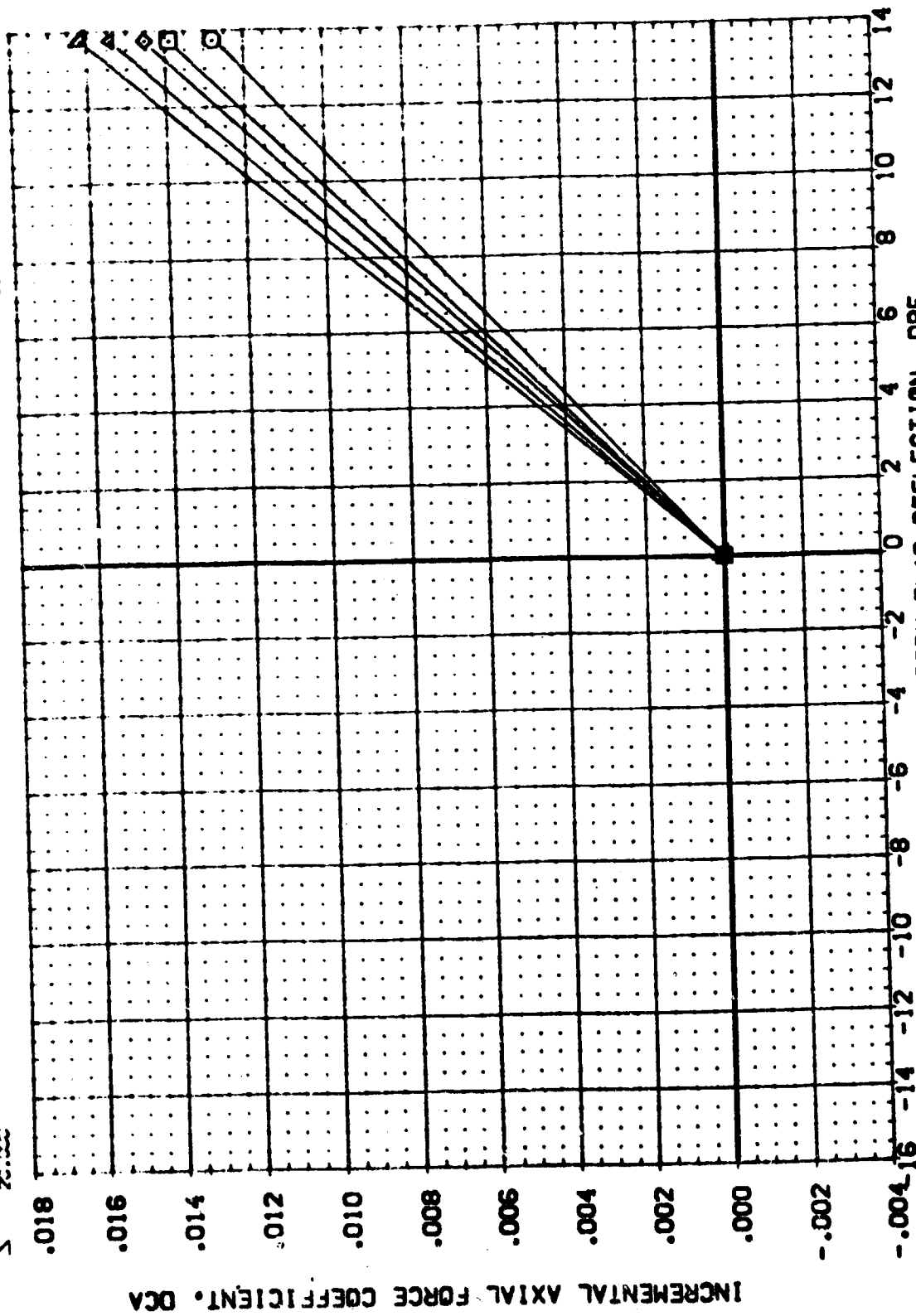


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(#87058)

MSFC 574(0A48) CRB 139

SYMBOL ALPHA
 0.000
 2.000
 4.000
 6.000
 8.000
 10.000

PARAMETRIC VALUES
 MAC= 1.96C
 ELEVTR .000
 SPDRM 999.990

BETA
 ALLPON

DATA SOURCE
 00F
 14.250
 13.750

DATASET
 .000
 .000
 .000

DBF
 .000
 .000
 .000

REFERENCE INFORMATION
 SREF 2690.0000
 LREF 474.8000
 BREF 936.7000
 XMAP 838.7000
 YMAP .0000
 ZMAP .0000
 SCALE .0010

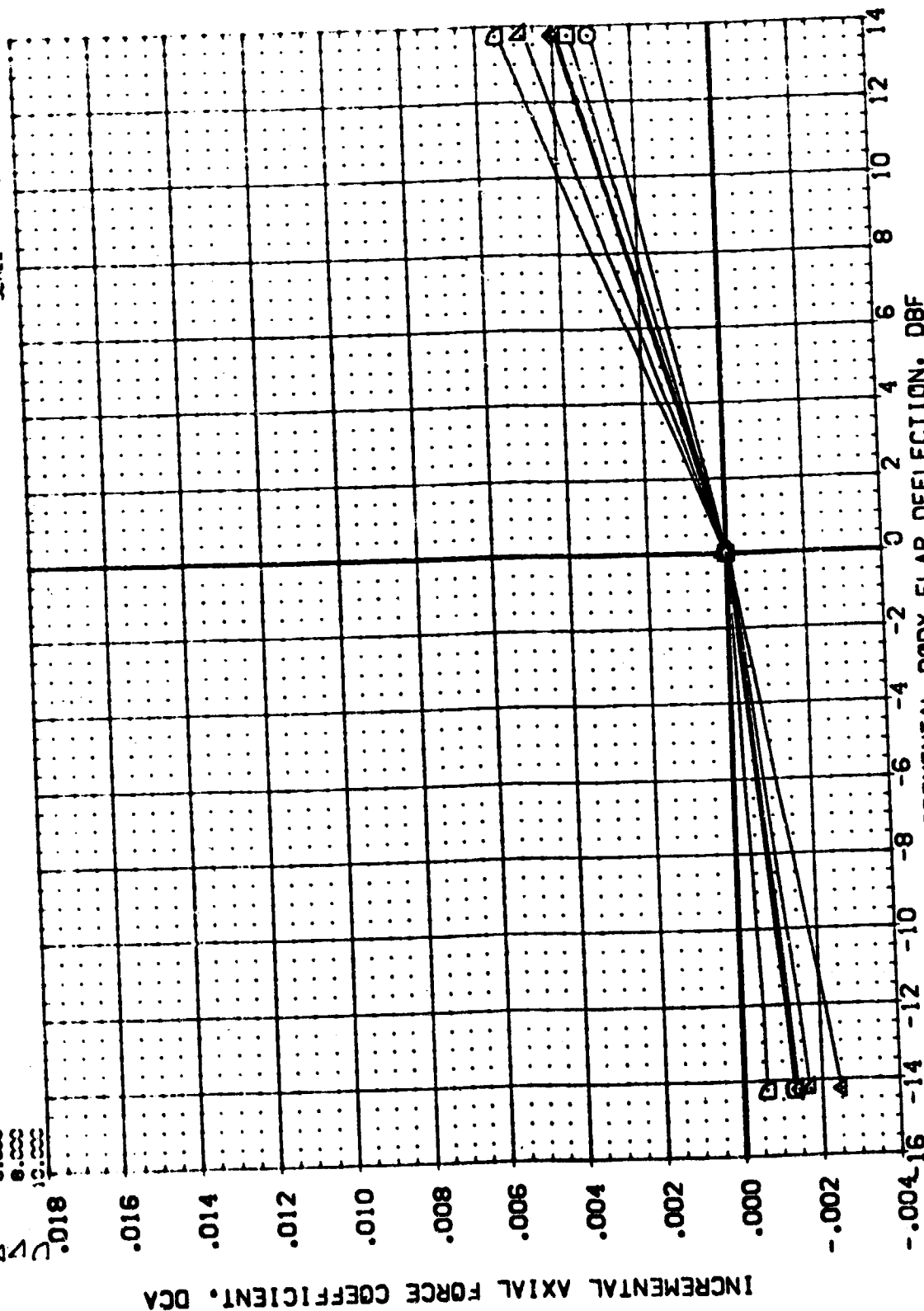


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(#87058)

MSFC 574(0A48) GRB 139

SYMBOL		ALPHA		MACH		PARAMETRIC VALUES		DATA SOURCE		DATASET		DBF		REFERENCE INFORMATION	
1	2	2.000	1.960	BETA	.000	087058	14.250	.000	REF	2690.0000	SC.F.				
3	4	4.000	.000	ALLRON	.000	087056	13.750	.000	REF	474.8000	SC.F.				
5	6	6.000	999.990						REF	936.7000	SC.F.				
7	8	8.000							REF	838.7000	SC.F.				
9	10	20.000							REF	2490.0000	SC.F.				

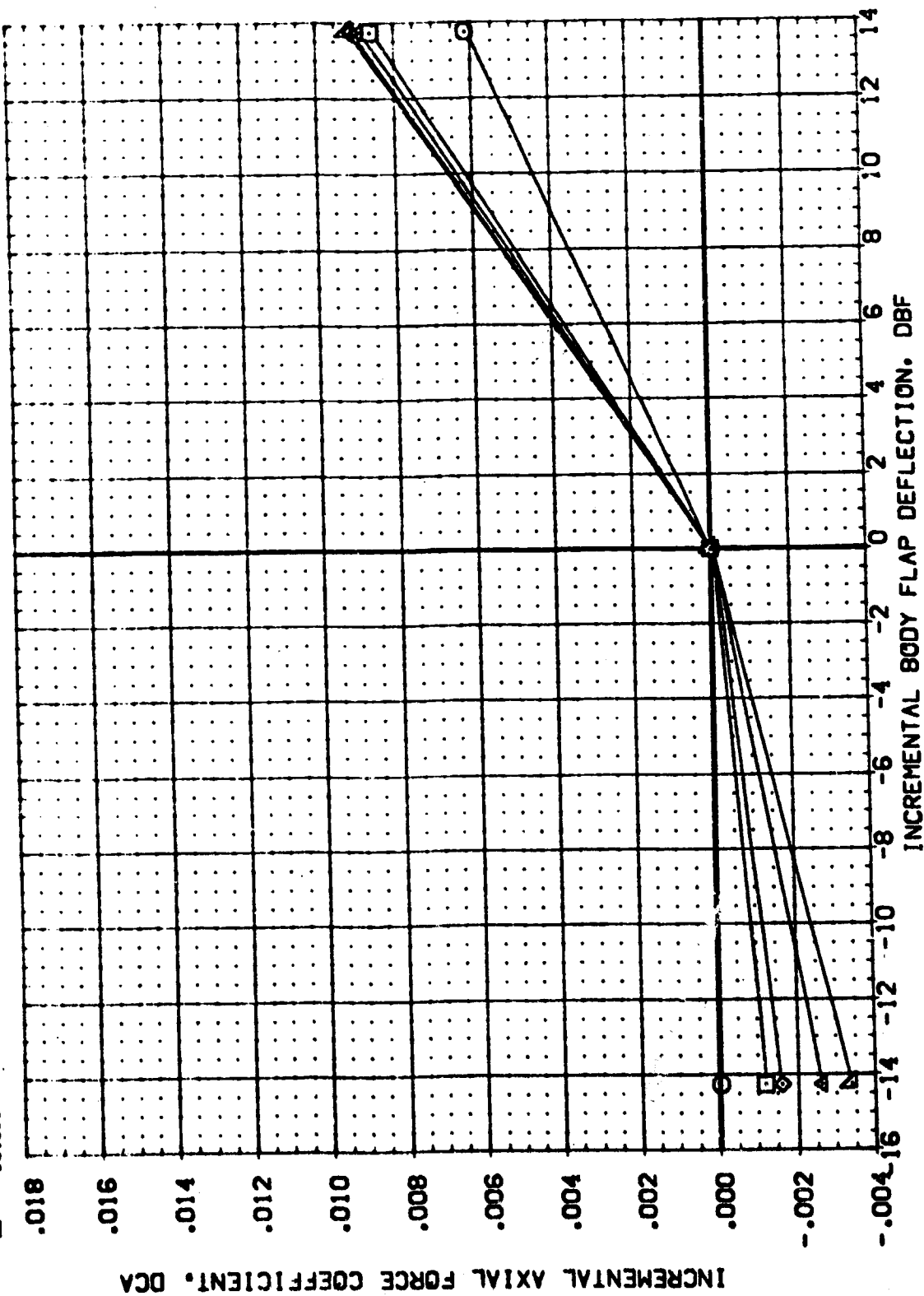


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

MSFC 574(0A48) ORB 139 (*87058)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	2.000	2.950	BETA	DBF	SREF
◇	4.000	.000	AILLON	DBF	REF
△	6.000	999.990		DBF	XREF
▽	8.000			DBF	YREF
◇	20.000			DBF	ZREF
				SCALE	SCALE

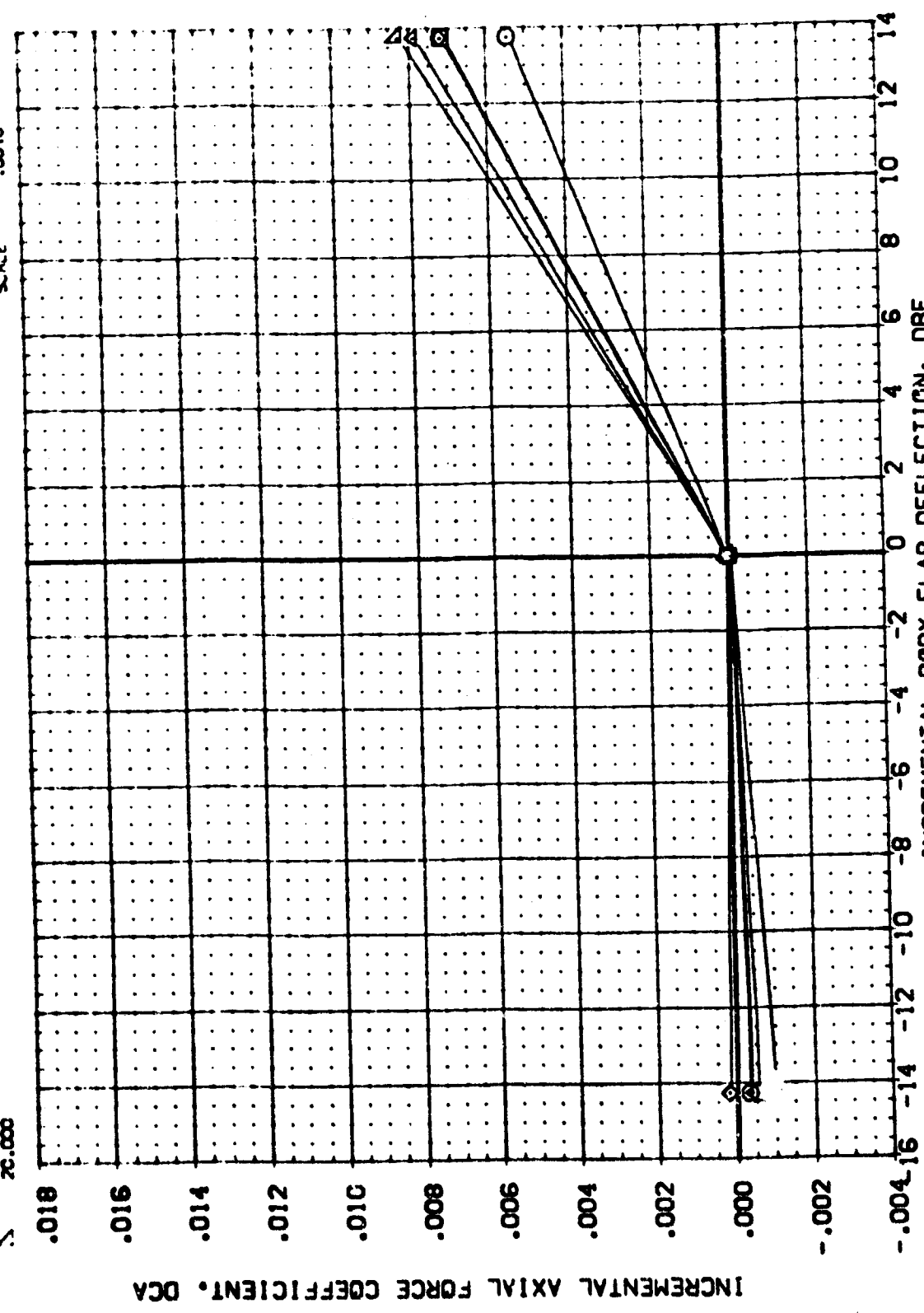


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(#87058)

MSFC 574(0A48) ORB 139

SYNCH	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATESET	DBF	DATA	DBF	REF	SCALE
0.000	0.000	1.960	BETA	DBF	0.000	0.000	0.000	0.000	0.000	0.000
2.000	2.000	0.000	ALLCON	-14.250	0.000	0.000	0.000	0.000	0.000	0.000
4.000	4.000	999.990		13.750	0.000	0.000	0.000	0.000	0.000	0.000
6.000	6.000				0.000	0.000	0.000	0.000	0.000	0.000
8.000	8.000				0.000	0.000	0.000	0.000	0.000	0.000
10.000	10.000				0.000	0.000	0.000	0.000	0.000	0.000

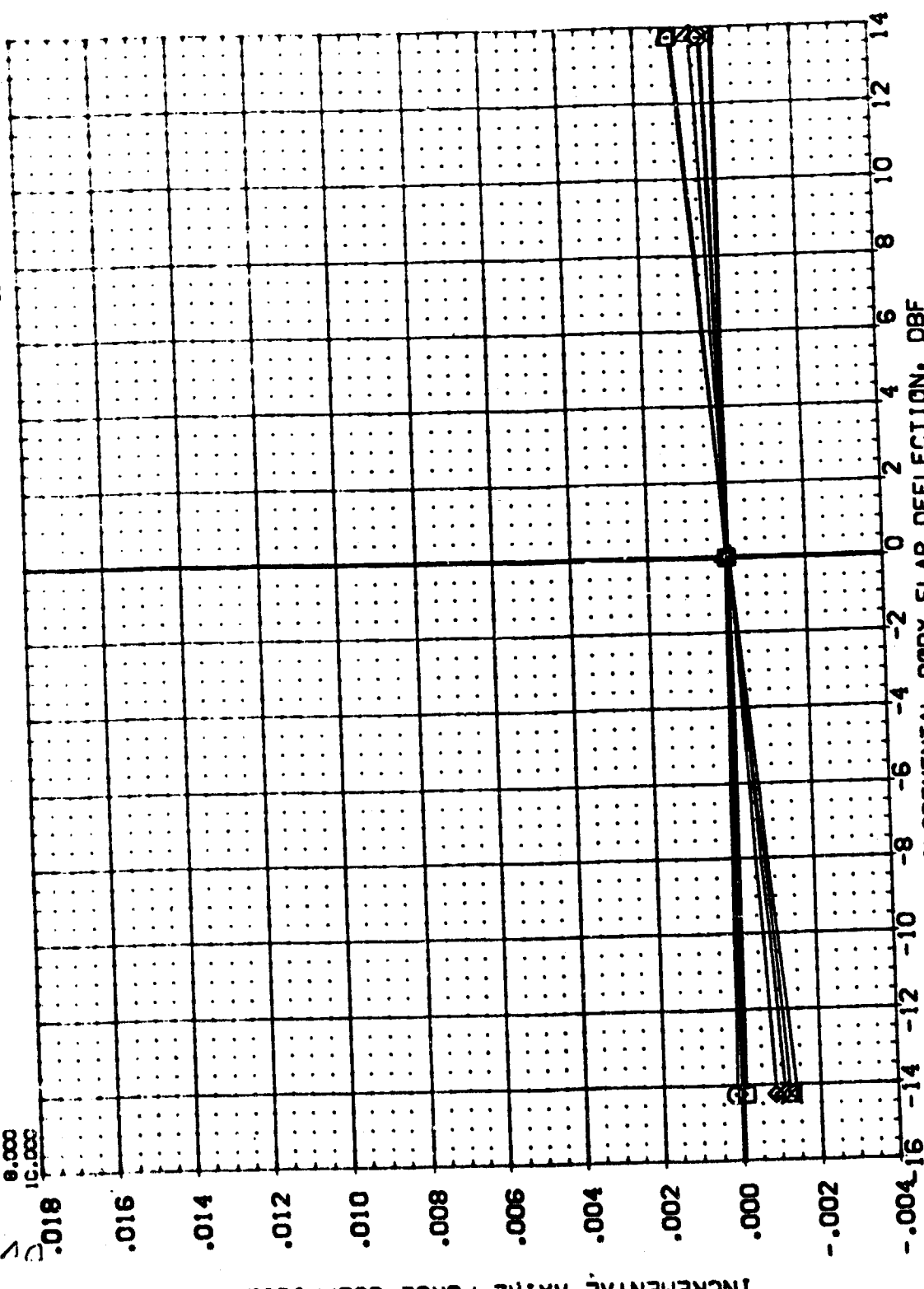


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(L87059)

MSFC 574(0A48) ORB 139

PARAMETRIC VALUES
 ALPHA 20.000
 MACH 2.950
 ELEVTR .000
 SPOBRK 999.990
 BETA
 ATLRCA

DATA SOURCE
 DBF
 DATASET L87059
 DBF L87059

REFERENCE INFORMATION
 SREF 2690.0000
 XREF 474.8000
 YREF 936.7000
 XMRD 836.7000
 YMRD .0000
 ZMRD .0000
 SCALE .0010

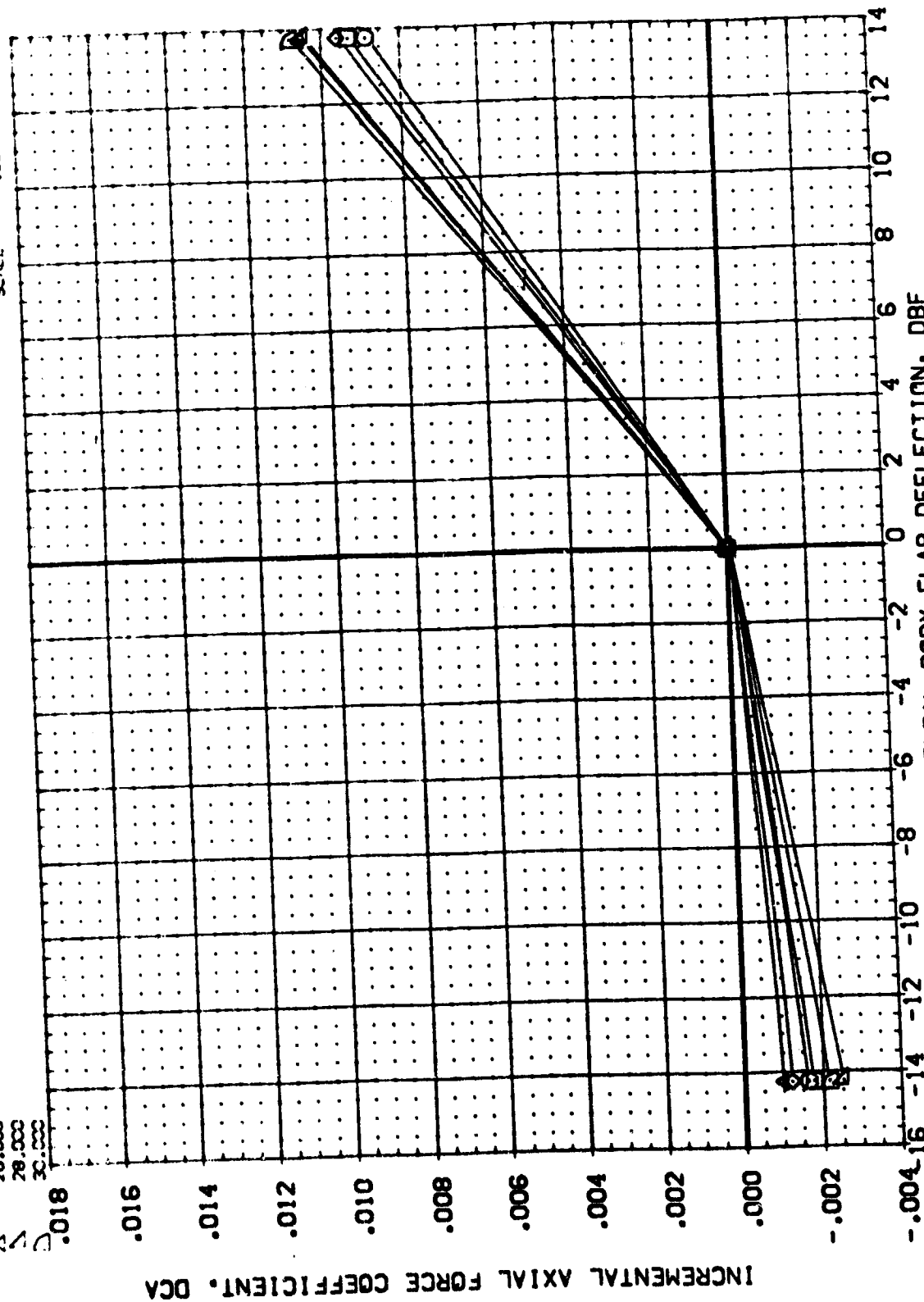


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(L87059)

MSFC 574(0A48) ORB 139

SYMBOL		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	32.000	MACH	2.950	BETA	.000	SREF	2690.0000
	34.000	ELEVTR	.000	AIRLEN	.000	LREF	474.6000
	36.000	SPDBRN	999.990			BREF	936.7000
	38.000					KREF	838.7000
	40.000					WREF	.0000
						ZREF	.0000
						SCALE	.0010

DATA SOURCE DBF -14.200
L87059 13.750

REFERENCE INFORMATION
SCALE
2690.0000
474.6000
936.7000
838.7000
.0000
.0000
7400
10010

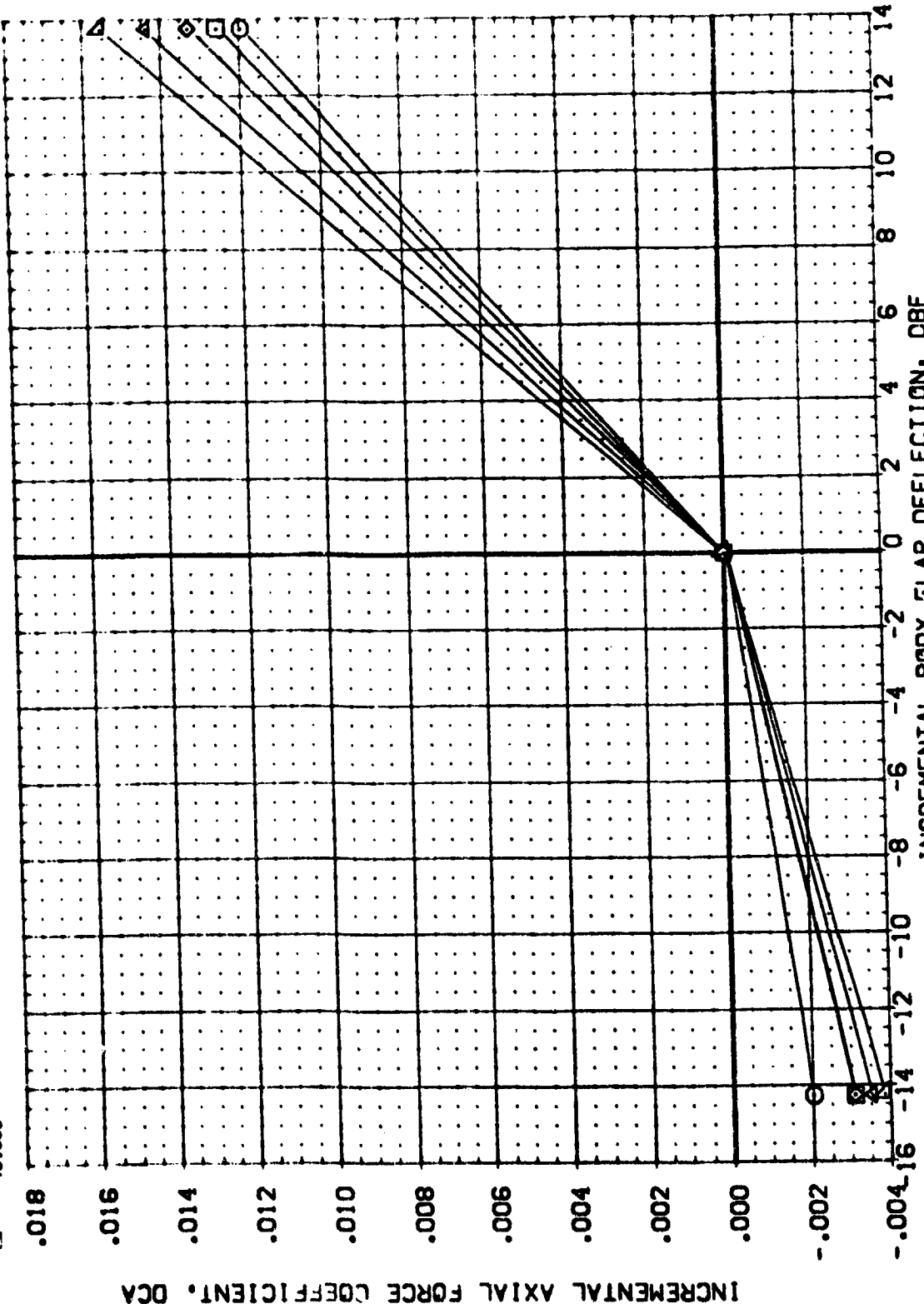


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(L87059)

VSFC 574(0A48) CRB :39

SYMBOL		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	20.000	MACH	4.960	DBF	DBF	SREF	2690.0000
BETA	22.000	ELEVTR	.000	DATASET	.000	LREF	474.0000
ALTRON	24.000	SPDRN	999.990	DBF	L87049	BREF	936.0000
	26.000					XREF	838.0000
	28.000					YREF	.0000
	30.000					SCALE	.0040

SC.F.F.
2690.0000
474.0000
936.0000
838.0000
.0000
.0040

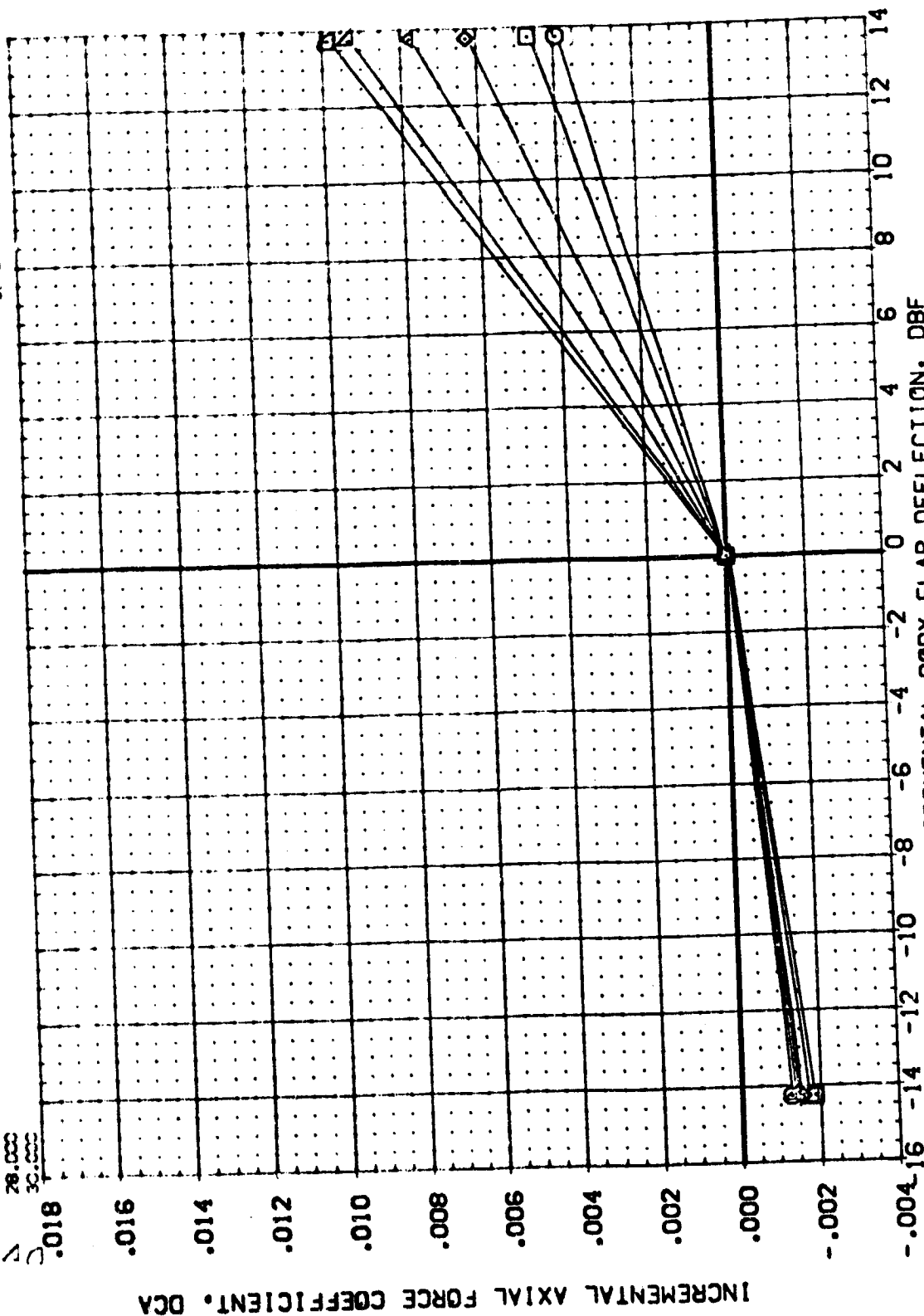


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(L87059)

MSFC 574(0A48) ORB 139

SYMBOL		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
○	ALPHA	32.000	MACH	.000	DBF	SREF	2690.0000
○		34.000	ELEVTR	.000	DBF	REF	474.8000
○		36.000	SPDRK	.000	DBF	REF	936.7000
△		38.000		.000	DBF	REF	838.7000
▽		40.000		.000	DBF	REF	740.0000
				.000	DBF	REF	600.0000
				.000	DBF	REF	500.0000
				.000	DBF	REF	400.0000
				.000	DBF	REF	300.0000
				.000	DBF	REF	200.0000
				.000	DBF	REF	100.0000
				.000	DBF	REF	0.0000
				.000	DBF	REF	-100.0000
				.000	DBF	REF	-200.0000
				.000	DBF	REF	-300.0000
				.000	DBF	REF	-400.0000
				.000	DBF	REF	-500.0000
				.000	DBF	REF	-600.0000
				.000	DBF	REF	-700.0000
				.000	DBF	REF	-800.0000
				.000	DBF	REF	-900.0000
				.000	DBF	REF	-1000.0000
				.000	DBF	REF	-1100.0000
				.000	DBF	REF	-1200.0000
				.000	DBF	REF	-1300.0000
				.000	DBF	REF	-1400.0000
				.000	DBF	REF	-1500.0000
				.000	DBF	REF	-1600.0000
				.000	DBF	REF	-1700.0000
				.000	DBF	REF	-1800.0000
				.000	DBF	REF	-1900.0000
				.000	DBF	REF	-2000.0000
				.000	DBF	REF	-2100.0000
				.000	DBF	REF	-2200.0000
				.000	DBF	REF	-2300.0000
				.000	DBF	REF	-2400.0000
				.000	DBF	REF	-2500.0000
				.000	DBF	REF	-2600.0000
				.000	DBF	REF	-2700.0000
				.000	DBF	REF	-2800.0000
				.000	DBF	REF	-2900.0000
				.000	DBF	REF	-3000.0000
				.000	DBF	REF	-3100.0000
				.000	DBF	REF	-3200.0000
				.000	DBF	REF	-3300.0000
				.000	DBF	REF	-3400.0000
				.000	DBF	REF	-3500.0000
				.000	DBF	REF	-3600.0000
				.000	DBF	REF	-3700.0000
				.000	DBF	REF	-3800.0000
				.000	DBF	REF	-3900.0000
				.000	DBF	REF	-4000.0000
				.000	DBF	REF	-4100.0000
				.000	DBF	REF	-4200.0000
				.000	DBF	REF	-4300.0000
				.000	DBF	REF	-4400.0000
				.000	DBF	REF	-4500.0000
				.000	DBF	REF	-4600.0000
				.000	DBF	REF	-4700.0000
				.000	DBF	REF	-4800.0000
				.000	DBF	REF	-4900.0000
				.000	DBF	REF	-5000.0000
				.000	DBF	REF	-5100.0000
				.000	DBF	REF	-5200.0000
				.000	DBF	REF	-5300.0000
				.000	DBF	REF	-5400.0000
				.000	DBF	REF	-5500.0000
				.000	DBF	REF	-5600.0000
				.000	DBF	REF	-5700.0000
				.000	DBF	REF	-5800.0000
				.000	DBF	REF	-5900.0000
				.000	DBF	REF	-6000.0000
				.000	DBF	REF	-6100.0000
				.000	DBF	REF	-6200.0000
				.000	DBF	REF	-6300.0000
				.000	DBF	REF	-6400.0000
				.000	DBF	REF	-6500.0000
				.000	DBF	REF	-6600.0000
				.000	DBF	REF	-6700.0000
				.000	DBF	REF	-6800.0000
				.000	DBF	REF	-6900.0000
				.000	DBF	REF	-7000.0000
				.000	DBF	REF	-7100.0000
				.000	DBF	REF	-7200.0000
				.000	DBF	REF	-7300.0000
				.000	DBF	REF	-7400.0000
				.000	DBF	REF	-7500.0000
				.000	DBF	REF	-7600.0000
				.000	DBF	REF	-7700.0000
				.000	DBF	REF	-7800.0000
				.000	DBF	REF	-7900.0000
				.000	DBF	REF	-8000.0000
				.000	DBF	REF	-8100.0000
				.000	DBF	REF	-8200.0000
				.000	DBF	REF	-8300.0000
				.000	DBF	REF	-8400.0000
				.000	DBF	REF	-8500.0000
				.000	DBF	REF	-8600.0000
				.000	DBF	REF	-8700.0000
				.000	DBF	REF	-8800.0000
				.000	DBF	REF	-8900.0000
				.000	DBF	REF	-9000.0000
				.000	DBF	REF	-9100.0000
				.000	DBF	REF	-9200.0000
				.000	DBF	REF	-9300.0000
				.000	DBF	REF	-9400.0000
				.000	DBF	REF	-9500.0000
				.000	DBF	REF	-9600.0000
				.000	DBF	REF	-9700.0000
				.000	DBF	REF	-9800.0000
				.000	DBF	REF	-9900.0000
				.000	DBF	REF	-10000.0000

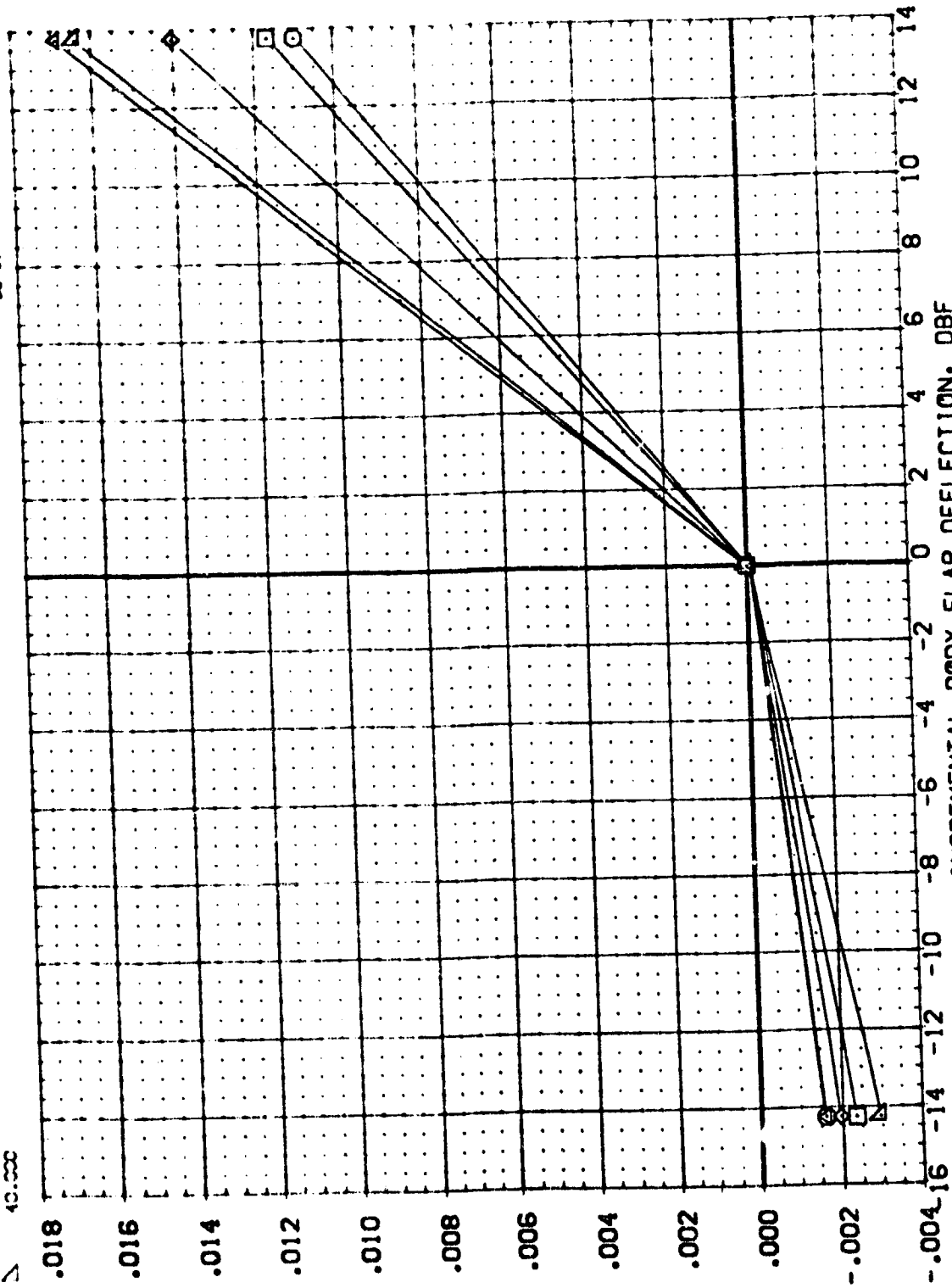


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(L87058)

VSFC 574(OA48) ORB 139

PARAMETRIC VALUES
 A. B. A. MACH ELEVTR SPOBRN
 .000 .630 .000 999.990
 2.000 .000 AILRON
 4.000
 6.000
 8.000
 10.000

DATA SOURCE
 DBF .000
 DATASET L87048
 DBF -14.25C
 DATASET L87058
 DBF 13.750

REFERENCE INFORMATION
 SPEC 2650.0000
 LREF 474.8000
 SPEC 936.7000
 XREF 838.7000
 YREF .0000
 ZREF .0000
 SCALE 100.00

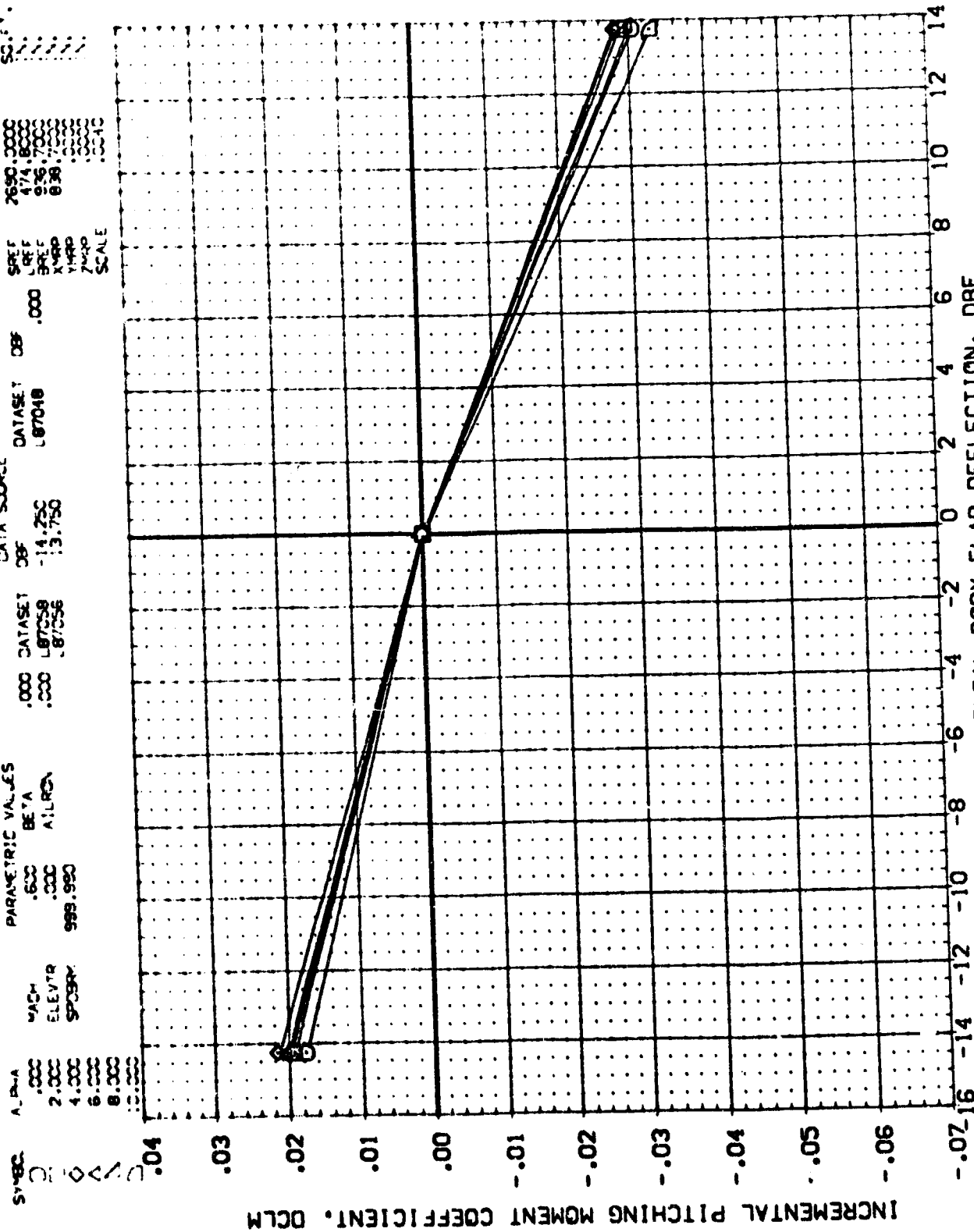


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

MSFC 574(CA48) CRB 139

REFERENCE IN SEPARATION

SALE
LIFE
BRIEF
K. 90
Y. 90
Z. 90
S. A. E

8



48 SE 7

DATA
1870**PLACE**

1:75C

08-143

1354

197
197
197

888

WJS
A
RCN

IC 33

900
550
950

PAR
399

TR
RX

6065
A373
MCH

000000

2.33
4.00
6.00

of

011047

100

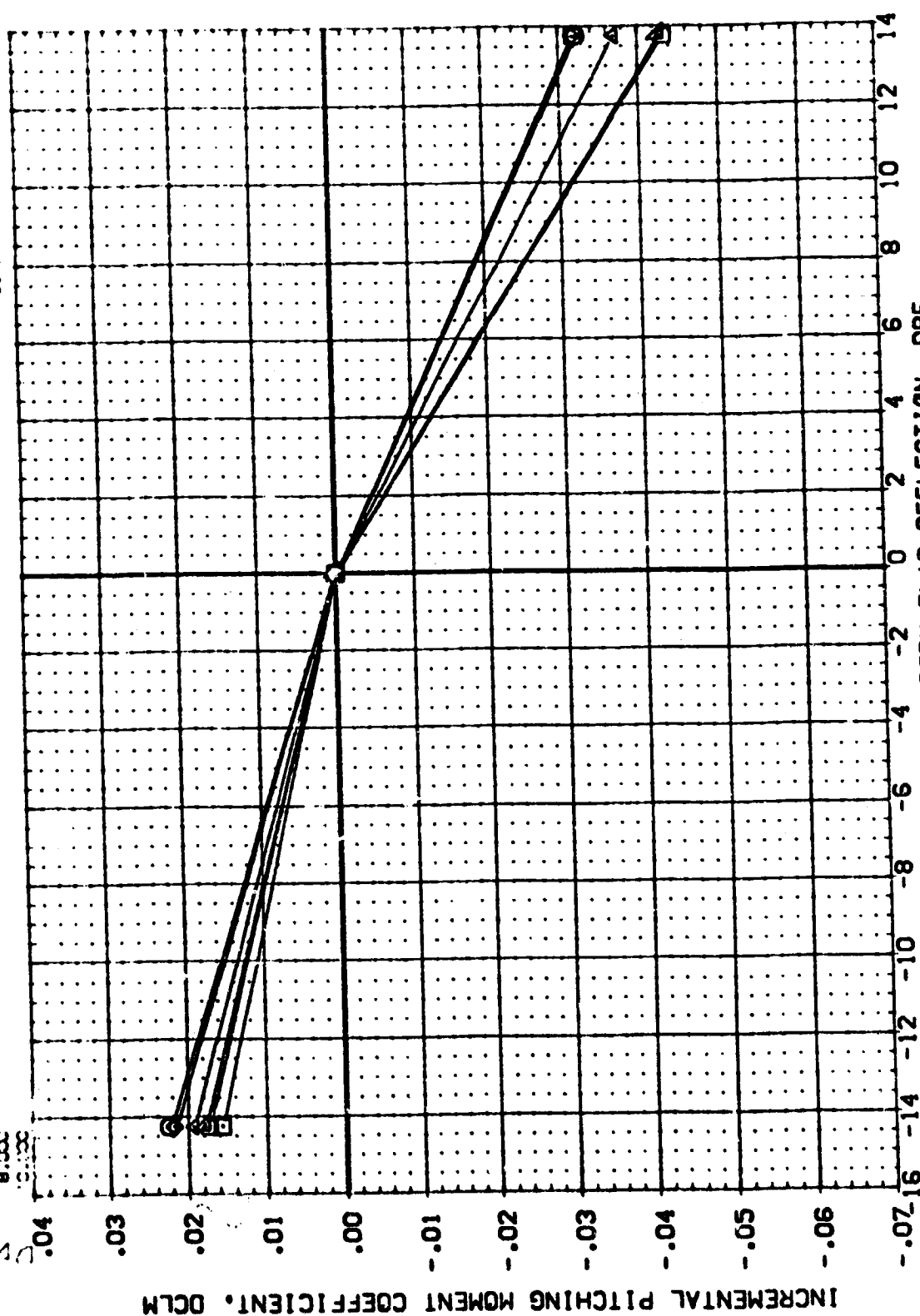


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

MSFC 574(0A48) GR8 139

REFERENCE INFORMATION

3-V-5
0607
0608
0609
0610
0611
0612

DATA SET 1
L87048
DBF
1.000

DATA SOURCE
OF
-14.25C
13.75C

1,000 DATASET
1,000 L87C58
1,000 L87C56

55-18610-1000

PARAMETRIC VALUES

BEYA **.900**

0.63

MACH

**2005
ELEVY**

3

ALPINA

12.000

85

38.8

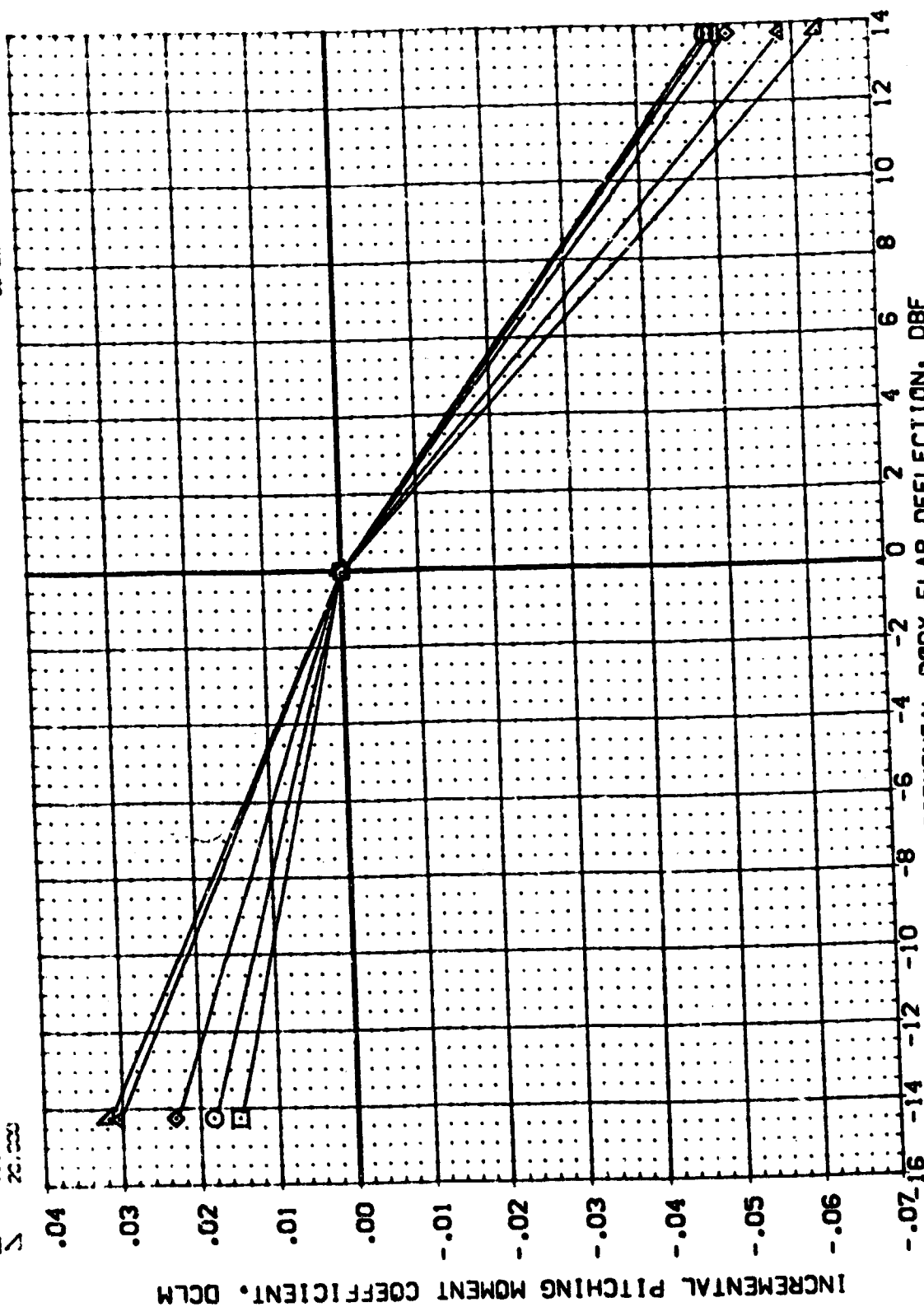


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

MSFC 574(CA48) CR3 !39

44-38861-1010

ALPHA
12.000
14.000
16.000
18.000
20.000

**MACH
ELEVATOR
SPIDER**

PARAMETER
1.200
.000
999.990

VALJES
DETA
MILRON

88

05C4
0501
135V1

1:250
0:750

DATA SET
870416

3.

2000

8888

•

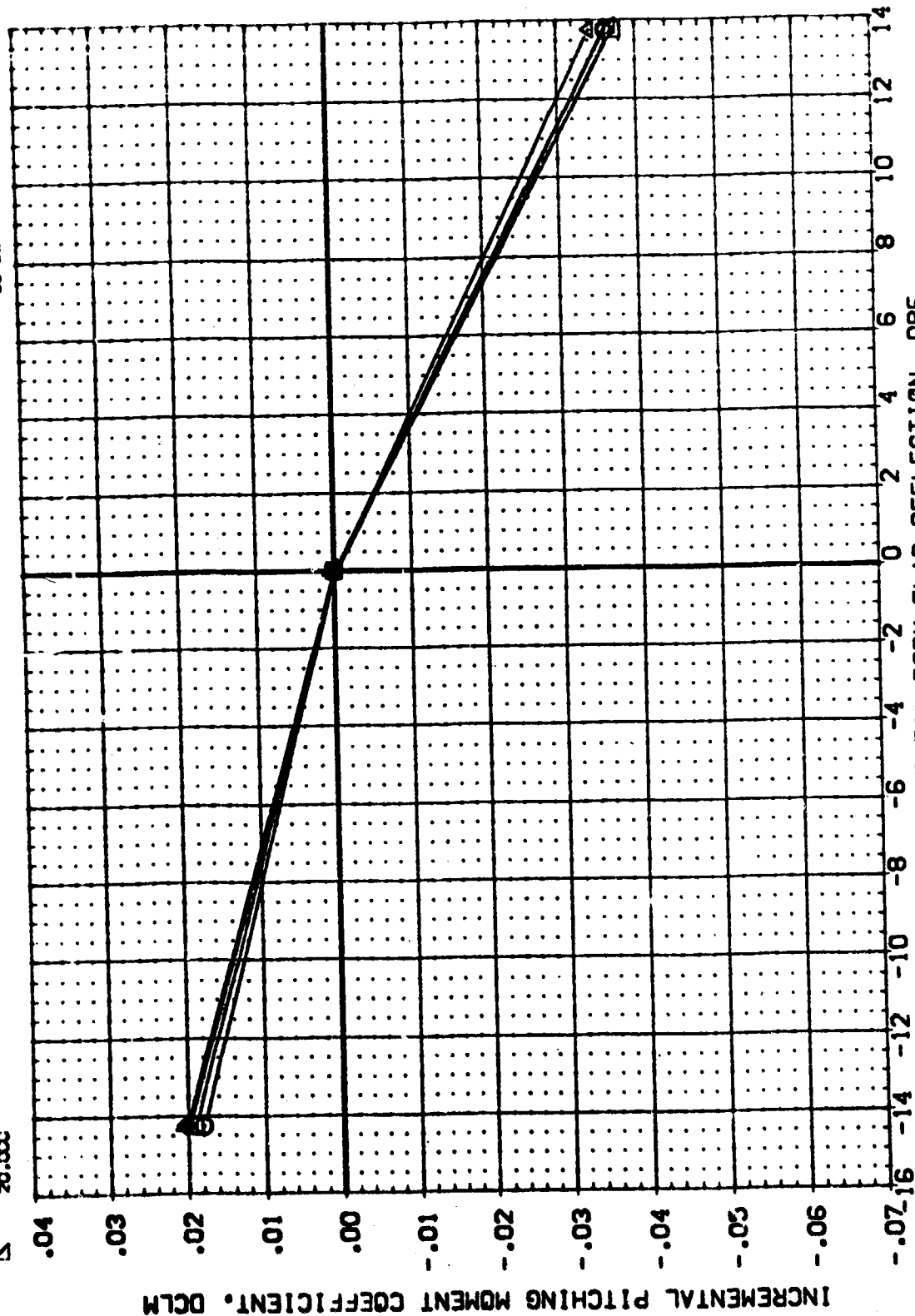


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

WSFC 574(CA48) DR3 139

REFERENCE INFORMATION:
269C:0000
474:800C
926:700C
838:700C
:0000
:0000
:0040

DATA SET 1 DBF
 L870418
 SCALE
 Y400
 Y400
 X400
 BREF
 LREF
 SREF

DATA SOURCE
-14.250
:3.750

1000 DATASET
1000 L87058
1000 L87056

PARAMETRIC VALUES

1.960	BETA
.000	ALPHA
999.990	

ALPHA	MACH	ELEVTR	SPEEDK
.000			
2.000			
4.000			
6.000			
8.000			

5780 001047

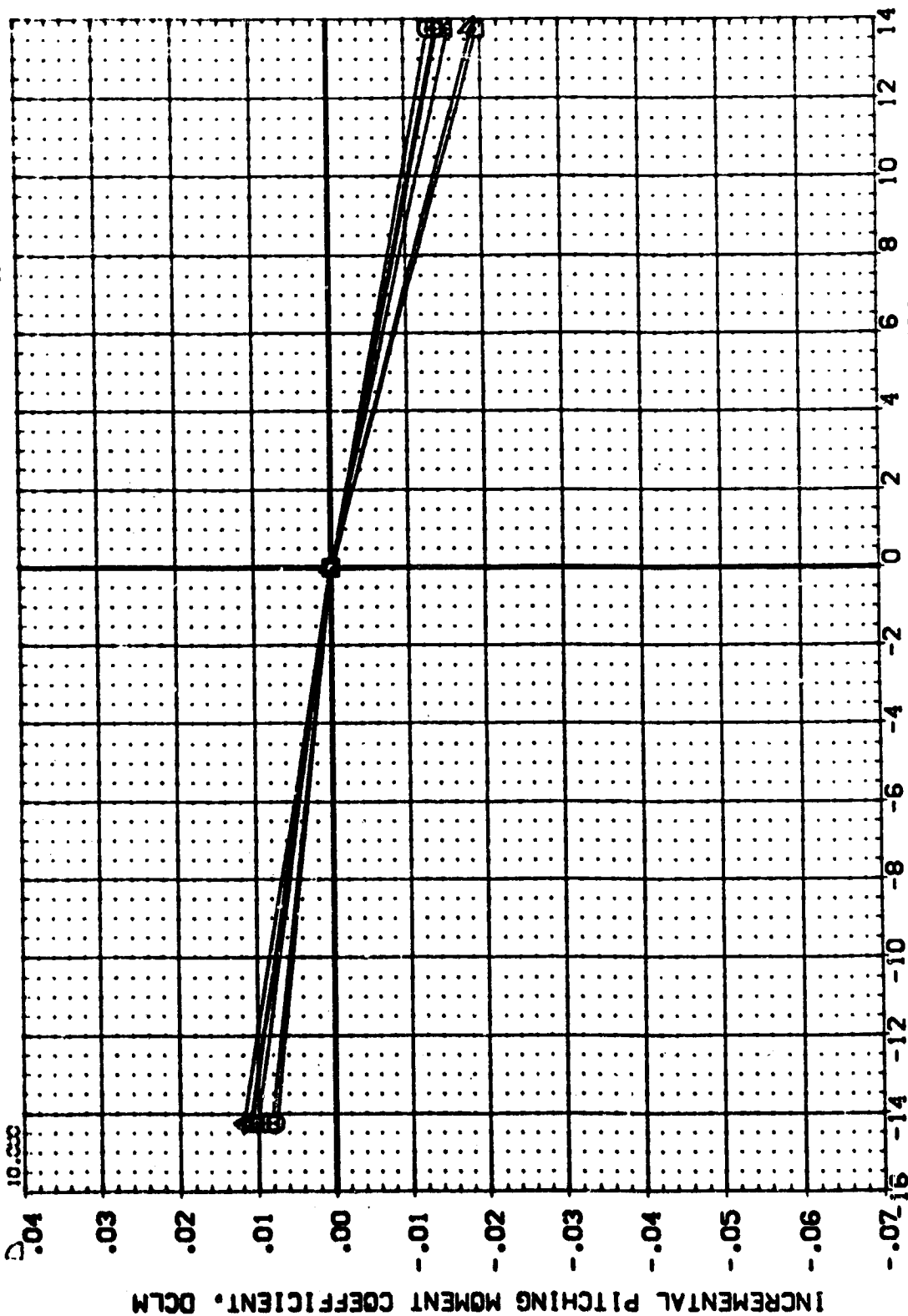


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(L87058)

VSFC 574(GA48) ORB 139

SYMBOL
12.000
14.000
16.000
18.000
20.000

ALPHA
12.000
14.000
16.000
18.000
20.000

MACH
ELEVTR
SUSBRV

PARAMETRIC VALUES
1.960 BETA
.000 ALLRON
999.990

.000 DATASET
.000 L87058
.000 L87056

DATA SOURCE
DBF
-14.250
13.750

DATASET
L87048

DBF

SREF
LREF
XREF
YREF
ZREF
SCALE

REFERENCE INFORMATION
2690.0000
474.8000
936.7000
836.7000
.0000
.0000
.0000
.0000
.0000
.0000
SCALE

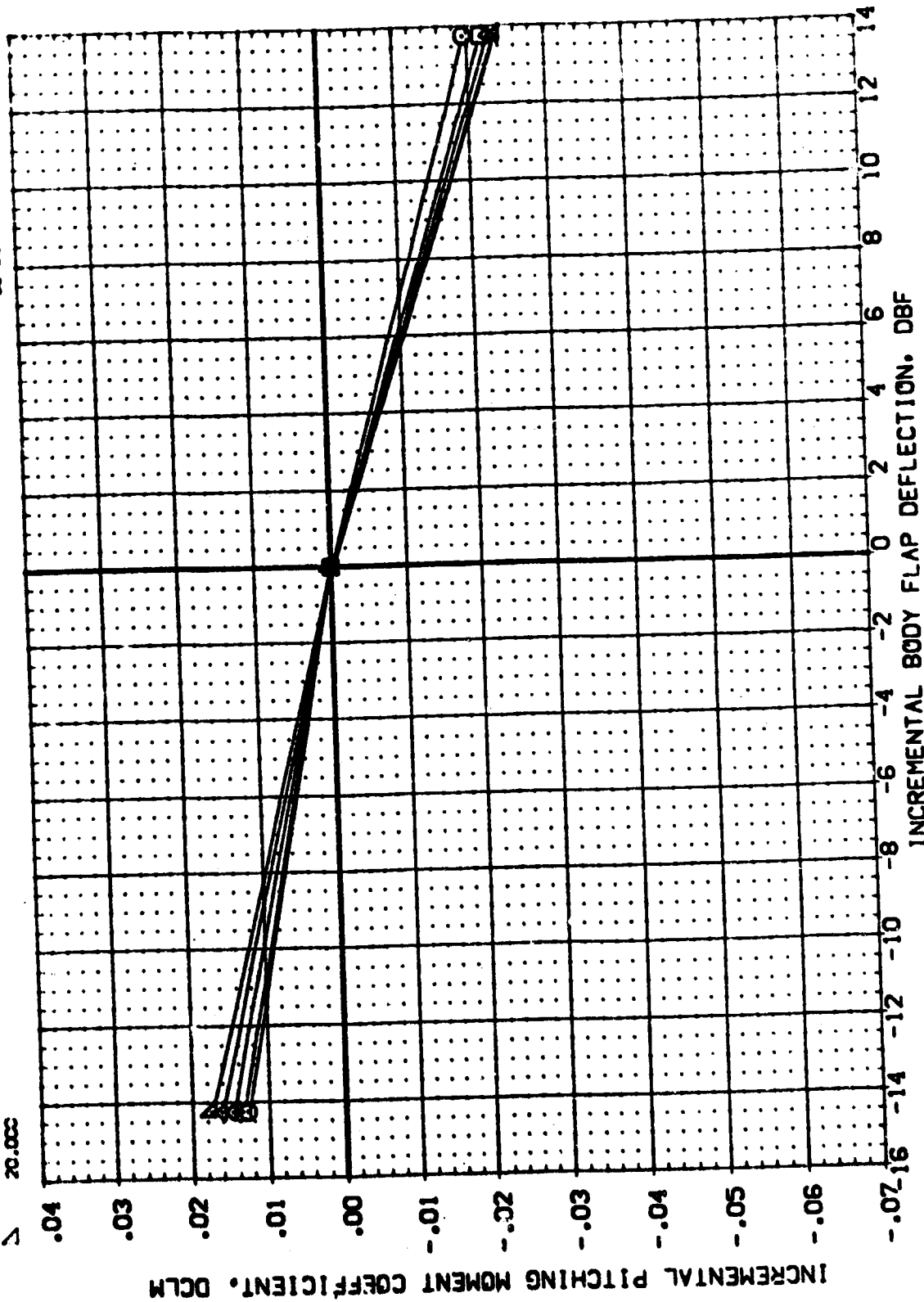


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

MSFC 574(0A48) ORB 139

(L87058)

ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
.000	MACH 2.950	DBF	SREF 2690.0000
2.000	ELEV'R .000	DATASET L87048	LREF 474.8000
4.000	SPDRK 999.990	DBF -14.750	SREF 936.7000
6.000		DATASET L87056	XREF 838.7000
8.000		DBF	YREF .0000
10.000		DBF	ZREF .0000
12.000		DBF	SCALE .0000

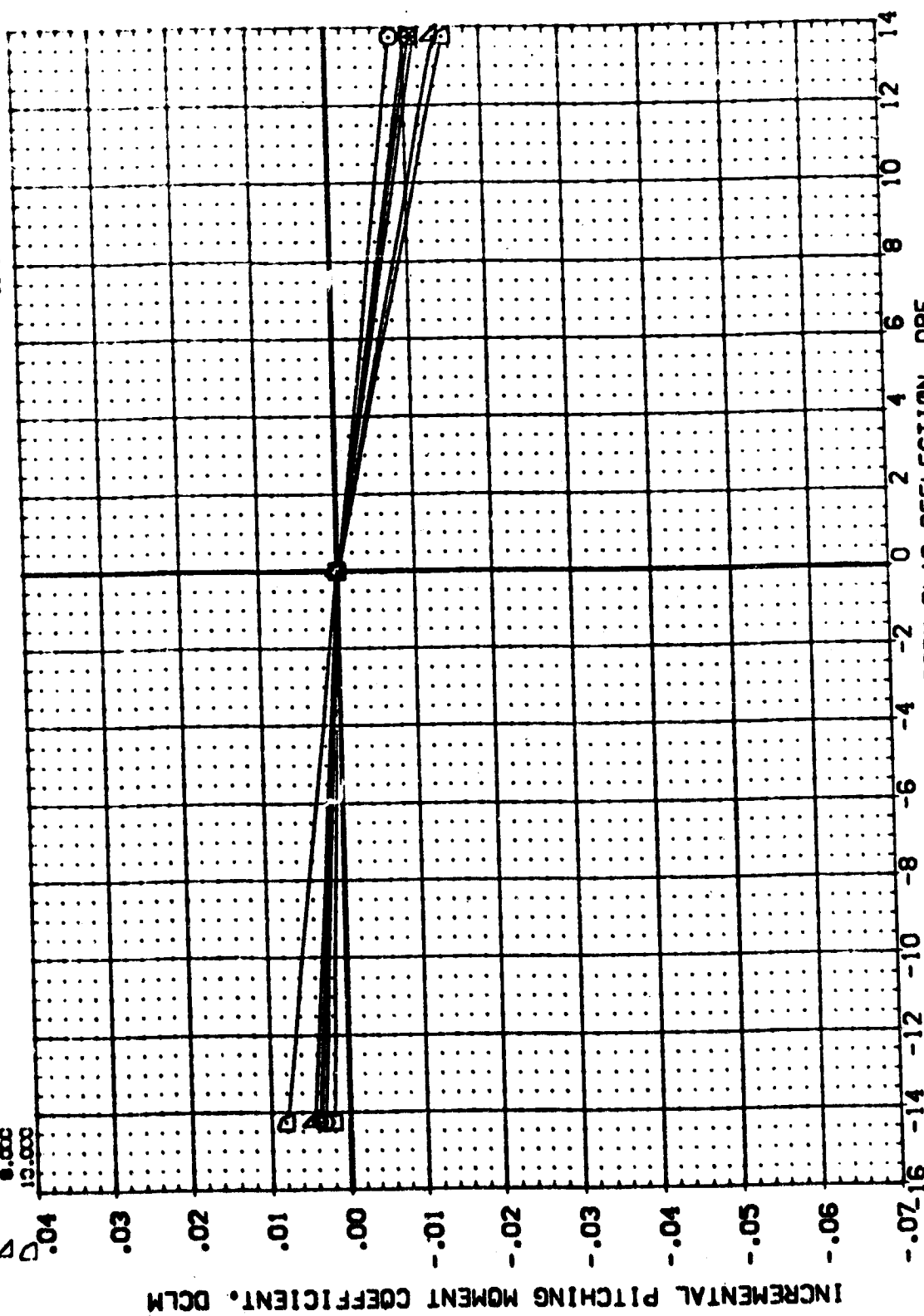


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

MSFC 574(0A48) GR3 i39

911-740-5711 30N 38.3330

374-5
00000
00000
00000
00000
00000
00000

DATA SOURCE		DATASET		DBF	
DBF	14-25C	L870418			.000
	13.750				

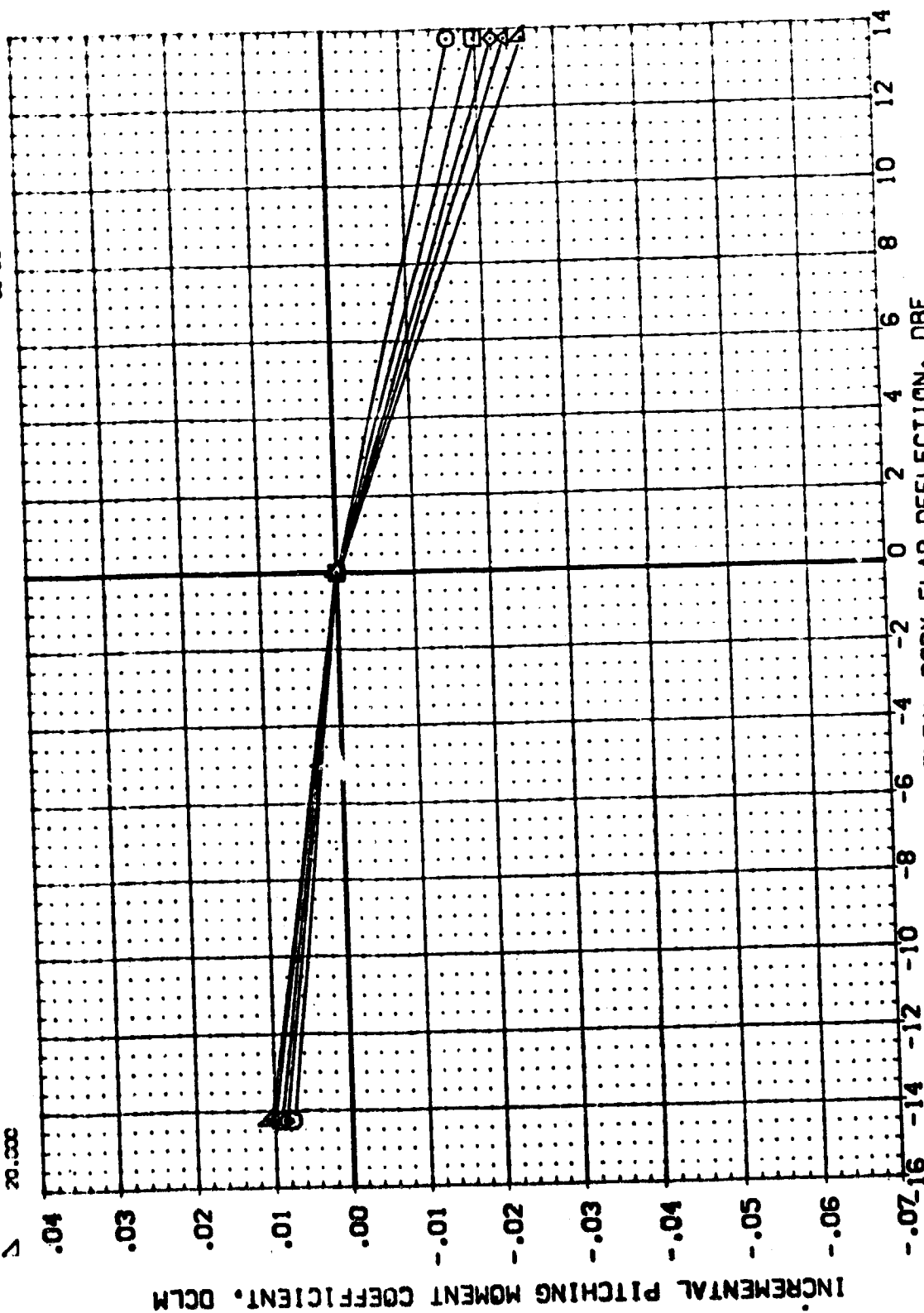
1,000 DATASET
1,000 L87C58
1,000 L87C56

PARAMETRIC VALUES
BETA
2.990
ALPHA
.000
999.990

**MACH
ELEVTR
SPARK**

ALPHA
12.000
14.000
16.000
18.000
20.000

SMS



07.16 -16 -14 -12 -10 -8 -6 -4 -2 0 2 4
INCREMENTAL BODY FLAP DEFLECTION, DBF

FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

WSEC 574(CA48) CR3 : 39

ALPHA	MACH	ELEVTR	SPDBRK	PARAMETRIC VALUES
.000				4.950 BE'A
2.000				.000 AIRLON
4.000				999.990
6.000				
8.000				
10.000				

LOC	DATASET	DBF	DATA SOURCE
LOC	LB7C58	-14.250	
LOC	LB7C56	13.750	

87048
135V1V0
CSC

SCALE
2000
1000
500
250
125
62.5
31.25
15.625
7.8125
3.90625
1.953125
0.9765625
0.48828125
0.244140625
0.1220703125
0.06103515625
0.030517578125
0.0152587890625
0.00762939453125
0.003814697265625
0.0019073486328125
0.00095367431640625
0.000476837158203125
0.0002384185791015625
0.00011920928955078125
0.000059604644775390625
0.0000298023223876953125
0.00001490116119384765625
0.000007450580596923828125
0.0000037252902984619140625
0.00000186264514923095703125
0.000000931322574615478515625
0.0000004656612873077392578125
0.00000023283064365386962890625
0.000000116415321826934814453125
0.000000582076609134674072265625
0.0000002910383045673370361328125
0.00000014551915228366851806640625
0.000000072759576141834259033203125
0.0000000363797880709171295166015625
0.00000001818989403545856475830078125
0.000000009094947017729282379150390625
0.0000000045474735088646411895751953125
0.00000000227373675443232059478759765625
0.000000001136868377216160297393798828125
0.0000000005684341886080801486968994140625
0.00000000028421709430404007434844970703125
0.000000000142108547152020037174224853515625
0.0000000000710542735760100185871124267578125
0.00000000003552713678800500929355621337890625
0.000000000017763568394002504646778106689453125
0.0000000000088817841970012523233890533447265625
0.00000000000444089209850062616169452667236328125
0.000000000002220446049250313080847263336181640625
0.0000000000011102230246251565404236316680908203125
0.00000000000055511151231257827021181583340541015625
0.000000000000277555756156289135105907916702705078125
0.0000000000001387778780781445675529539583513525390625
0.00000000000006938893903907228377647697917567626953125
0.000000000000034694469519536141888238489587838134765625
0.0000000000000173472347597680709441192447939190673828125
0.00000000000000867361737988403547205962239695953694140625
0.000000000000004336808689942017736029811198479768470703125
0.0000000000000021684043449710088680149055992398842353515625
0.00000000000000108420217248550443400745279961994211767578125
0.000000000000000542101086242752217003726399809971058837890625
0.0000000000000002710505431213761085018631999049855294189453125
0.00000000000000013552527156068805425093159995249276470947265625
0.000000000000000067762635780344027125465799976246382354736328125
0.0000000000000000338813178901720135627328999881231911773681640625
0.0000000000000000169406589450860067813664499944060955886840625
0.00000000000000000847032947254300339068322499720304779434203125
0.000000000000000004235164736271501695341612498601523897171015625
0.0000000000000000021175823681357508476708062493007619485855078125
0.00000000000000000105879118406787542383540312465038097429275390625
0.000000000000000000529395592033937711917701562325190487146376953125
0.0000000000000000002646977960169688559588507811629522435731884765625
0.00000000000000000013234889800848442797942539058147612178659423828125
0.000000000000000000066174449004242213989712695290738060893297119140625
0.0000000000000000000330872245021211069948563476453690304466485955703125
0.00000000000000000001654361225106055349742817382268451522332429778515625
0.000000000000000000008271806125530276748714086911342257611662148892578125
0.0000000000000000000041359030627651383743570434556711288058310744462890625
0.00000000000000000000206795153138256918717852172783556440291553722314453125
0.000000000000000000001033975765691284593589260863917782201457768611572265625
0.0000000000000000000005169878828456422967946304319588911007288843057861328125
0.00000000000000000000025849394142282114839731521597944555036444215289306640625
0.000000000000000000000129246970711410574198657607989722775182221076446533203125
0.0000000000000000000000646234853557052870993288039948613875911105382232666015625
0.00000000000000000000003231174267785264354966440199743069379555526911163330078125
0.000000000000000000000016155871338926321774832200998715346897777634555816650390625
0.0000000000000000000000080779356694631608874161004993576734488888172779083251953125
0.0000000000000000000000040389

REFERENCE INFORMATION:
269C. 0000
474. 8000
936. 7000
838. 7000
: 0000
: 0000
: 0000

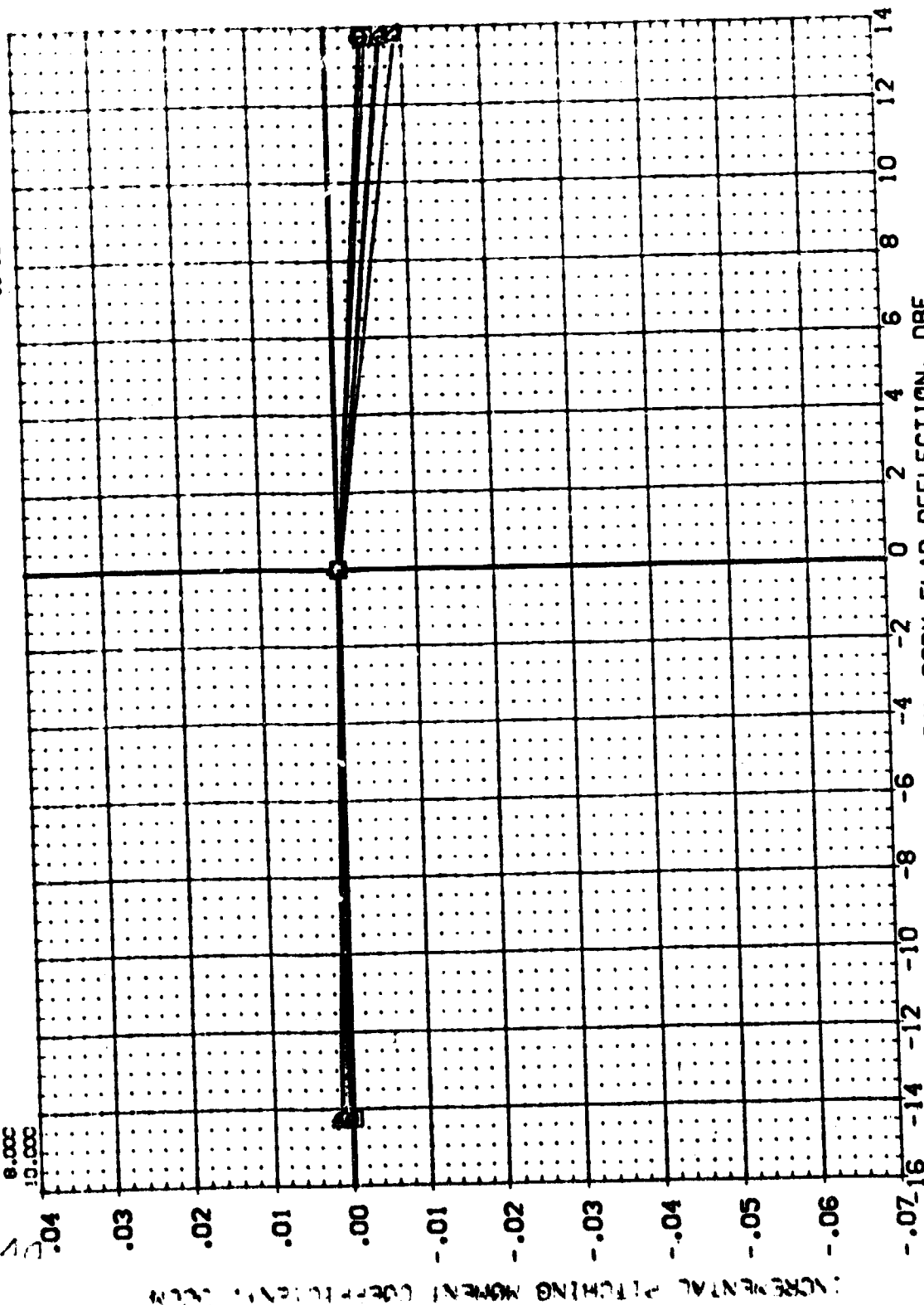


FIG. 36

(L87058)

WSFC 574(CA48) ORB 139

SYMBOL ALPHA
12.000
14.000
16.000
18.000
20.000

MACH
ELEVTR
SPDRK

PARAMETRIC VALUES
4.960 BETA
.000 ALLRON
999.99C

.000 DATASET
.000 L87058
.000 L87056

DATA SOURCE
DBF
-14.25C
13.750

DATASET
L87048

DBF
.000

REFERENCE INFORMATION
SREF 2690.0000
LREF 474.8000
BREF 936.7000
XREF 838.7000
YREF .0000
ZREF .0000
SCALE .0040

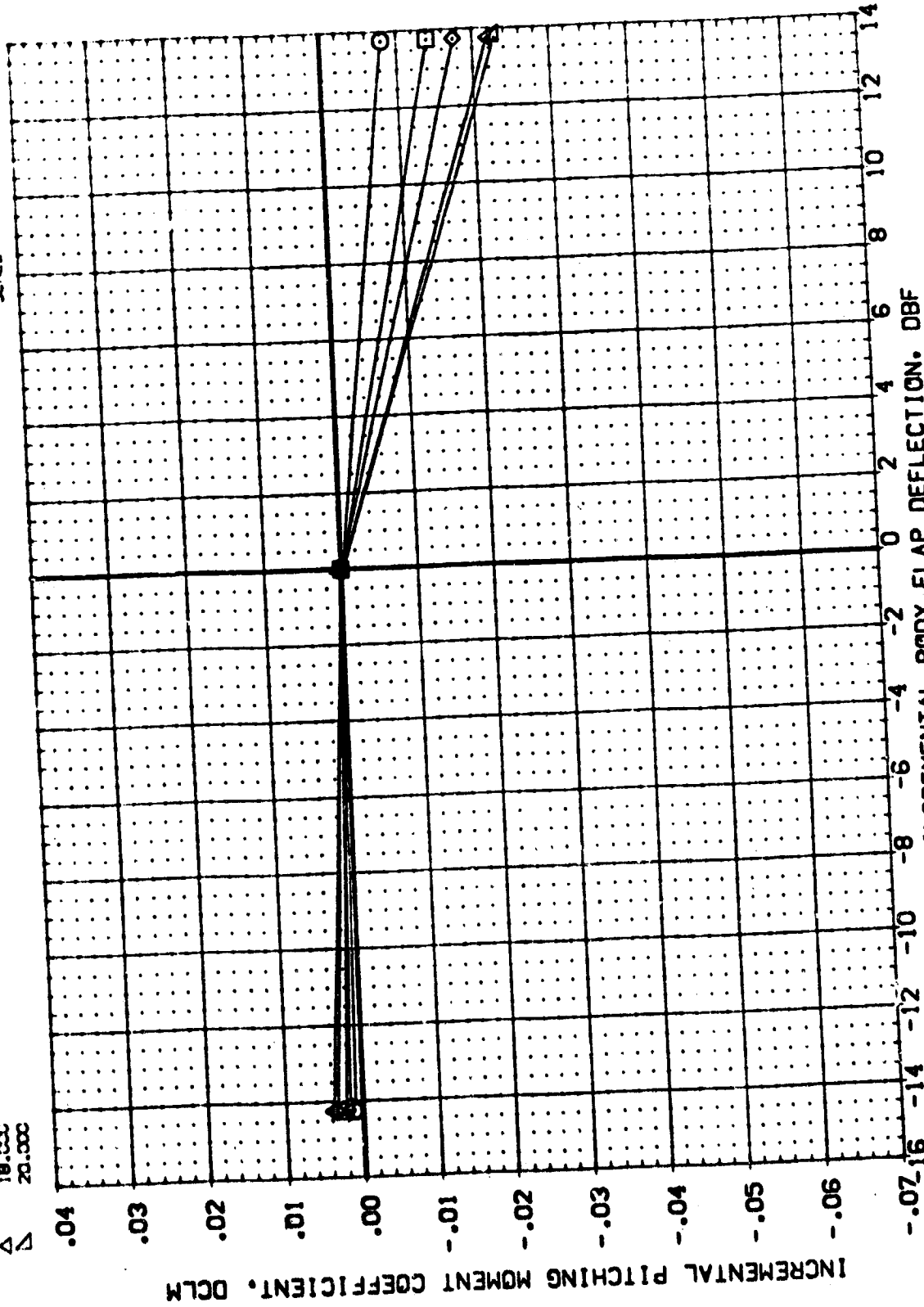


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(L87059)

VSFC 574(0A48) CRB :39

SYMBOL ALPHA MACH ELEVTR SPDRK
32.000
34.000
36.000
38.000
40.000

PARAMETRIC VALUES
2.95C BETA
.00C A1LCON
999.990

DATA SOURCE
DBF
-14.25C
13.75C

DATASET
L87059
L87057

DBF

DATASET
L87049

SCALE
YREF
ZREF
XREF
YREF
ZREF
XREF

REFERENCE INFORMATION
269C.0000
474.800C
936.700C
838.700C
.000C
.000C
.000C
SCALE

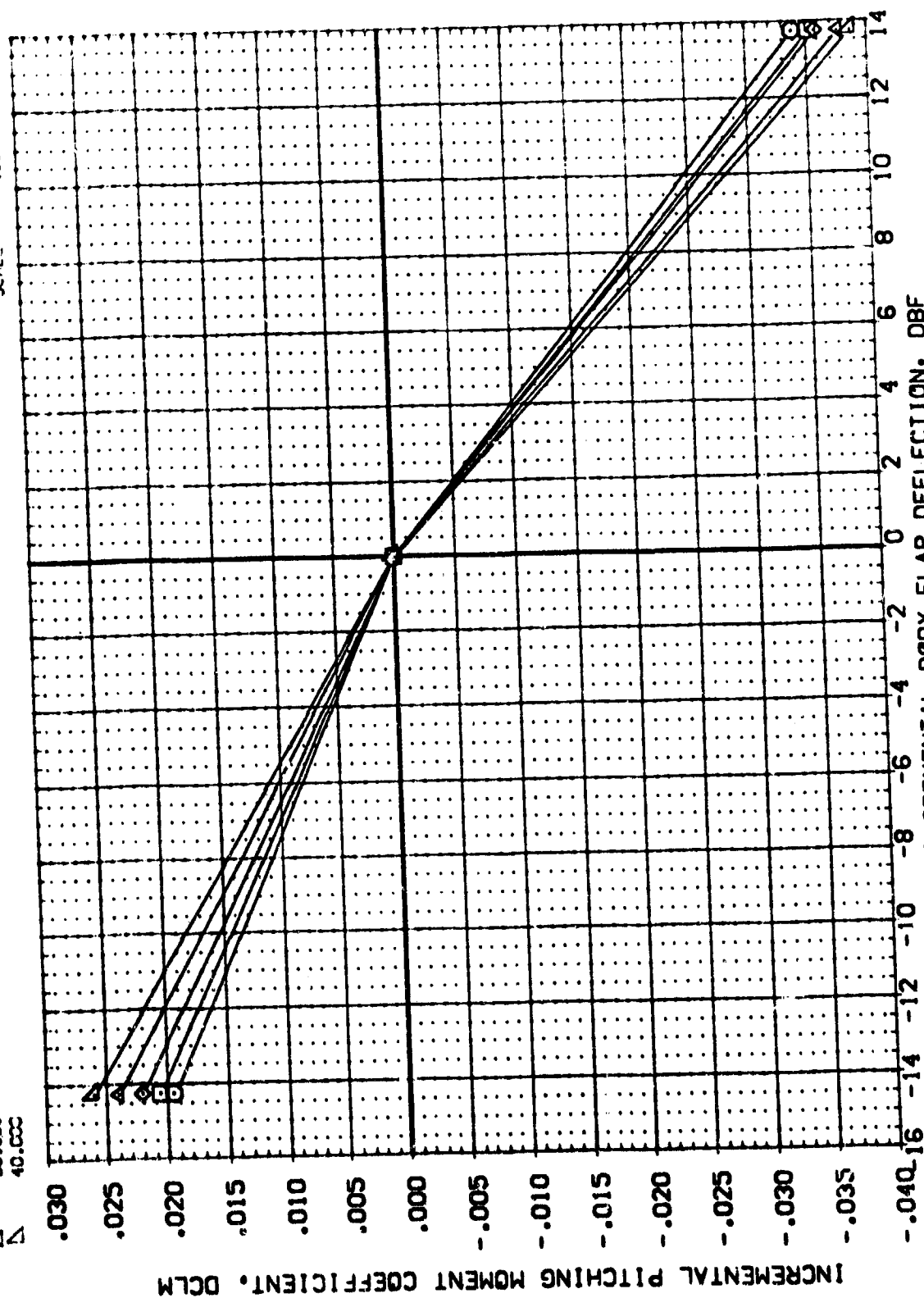


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(L87059)

VSFC 574(0A48) ORB 139

SYMBOL ALPHA MACH ELEVTR SPOBRM
 20.000 1.960 .000 999.990
 22.000 1.960 .000 999.990
 24.000 1.960 .000 999.990
 26.000 1.960 .000 999.990
 28.000 1.960 .000 999.990
 30.000 1.960 .000 999.990

PARAMETRIC VALUES
 BETA
 AILRON
 999.990

DATA SOURCE
 DBF
 -14.250
 :3.750

.000 DATASET
 .000 L87059
 .000 L87057

DATASET DBF
 L87049 .000

REFERENCE INFORMATION
 SREF 269C.0000
 LREF 474.8000
 SREF 936.7000
 XREF 838.7000
 YREF .0000
 ZREF .0000
 SCALE .0040

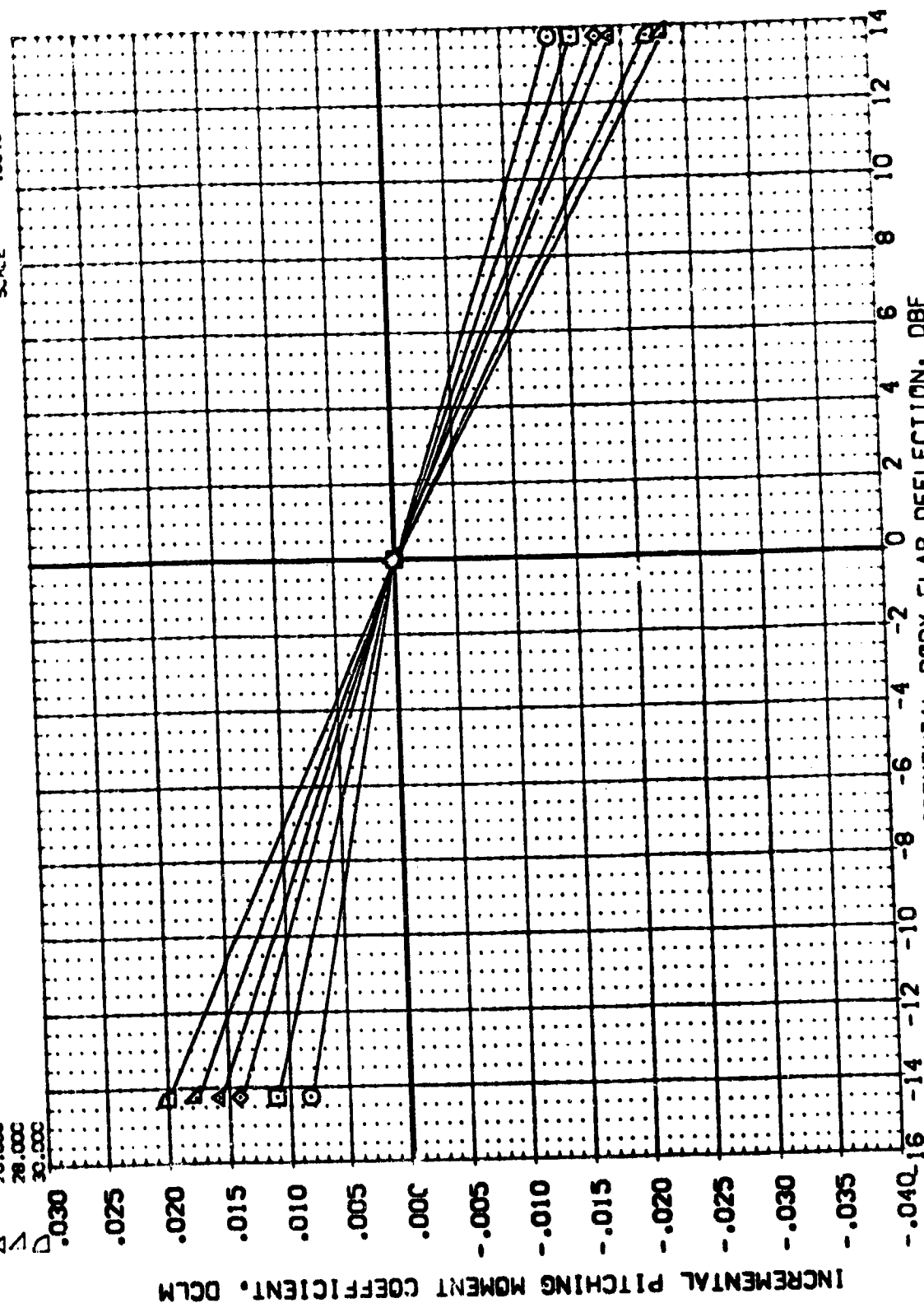


FIG. 36 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

MSCF 5741CA48) CR3 :39

REFERENCE INFORMATION

DATA SOURCE
DB
-14.25C
13.75C

1000 DATASET
1000 L87059
1000 L87057

PARAMETRIC VALUES
4.96C BETA
.000 AILRON
999.99C

ALPHA	MACH	ELEVTR	SPOBRK
32.000			
34.000			
36.000			
38.000			
40.000			

44-0000

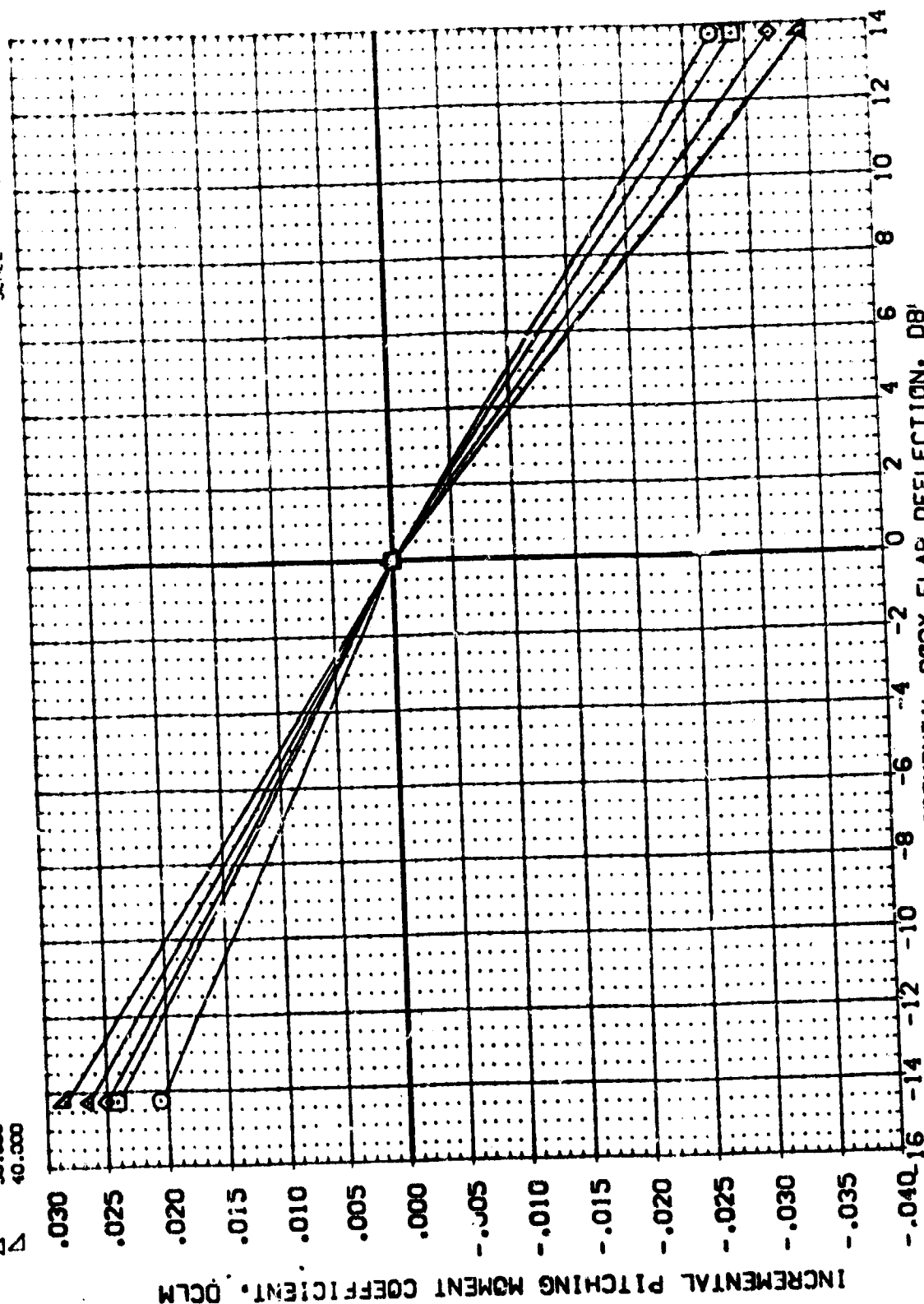


FIG. 36
INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139

(L87075)

VSFC 574(CA48) ORB 139 W/ALT NOSE

SYMBOL	ALPHA	MACH	ELEVTR	SPOBRK	PARAMETRIC VALUES	DATA SOURCE	DATA SET	DBF	SCALE
0.000	0.000	0.000	0.000	0.000	BETA	DBF	0.000	0.000	0.000
2.000	0.000	0.000	0.000	0.000	ALTRON	DBF	0.000	0.000	0.000
4.000	0.000	0.000	0.000	0.000	999.999	DBF	0.000	0.000	0.000
6.000	0.000	0.000	0.000	0.000		DBF	0.000	0.000	0.000
8.000	0.000	0.000	0.000	0.000		DBF	0.000	0.000	0.000
10.000	0.000	0.000	0.000	0.000		DBF	0.000	0.000	0.000

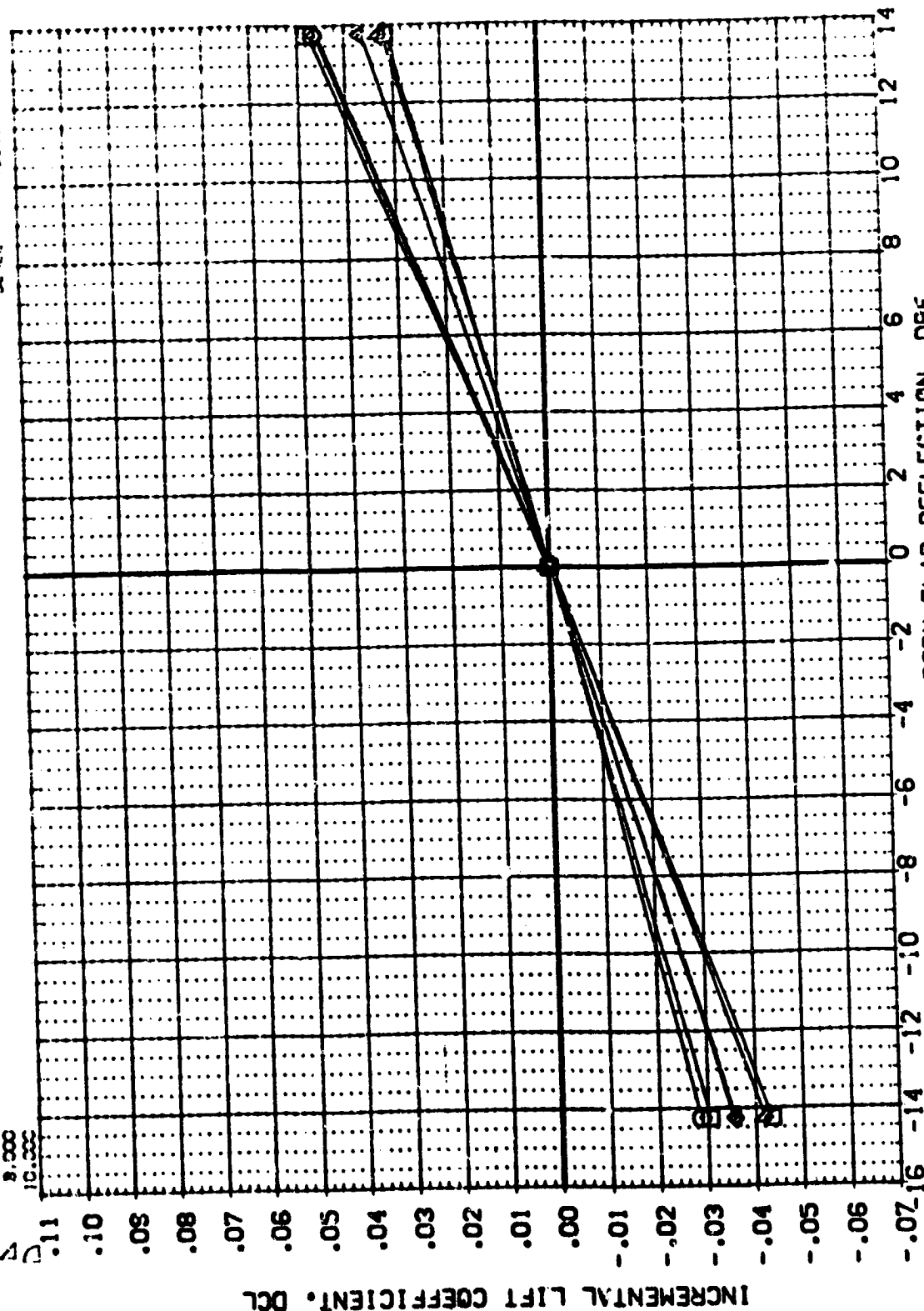




FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE

WSEC 574(CA48) CR3 :39 W/ALT NOSE

SECRET

SCALE

DB

DATE 10/10/66

DATA SOURCE	14.250	13.750
14.250		
13.750		

DATASET
 L87075
 L87073

88

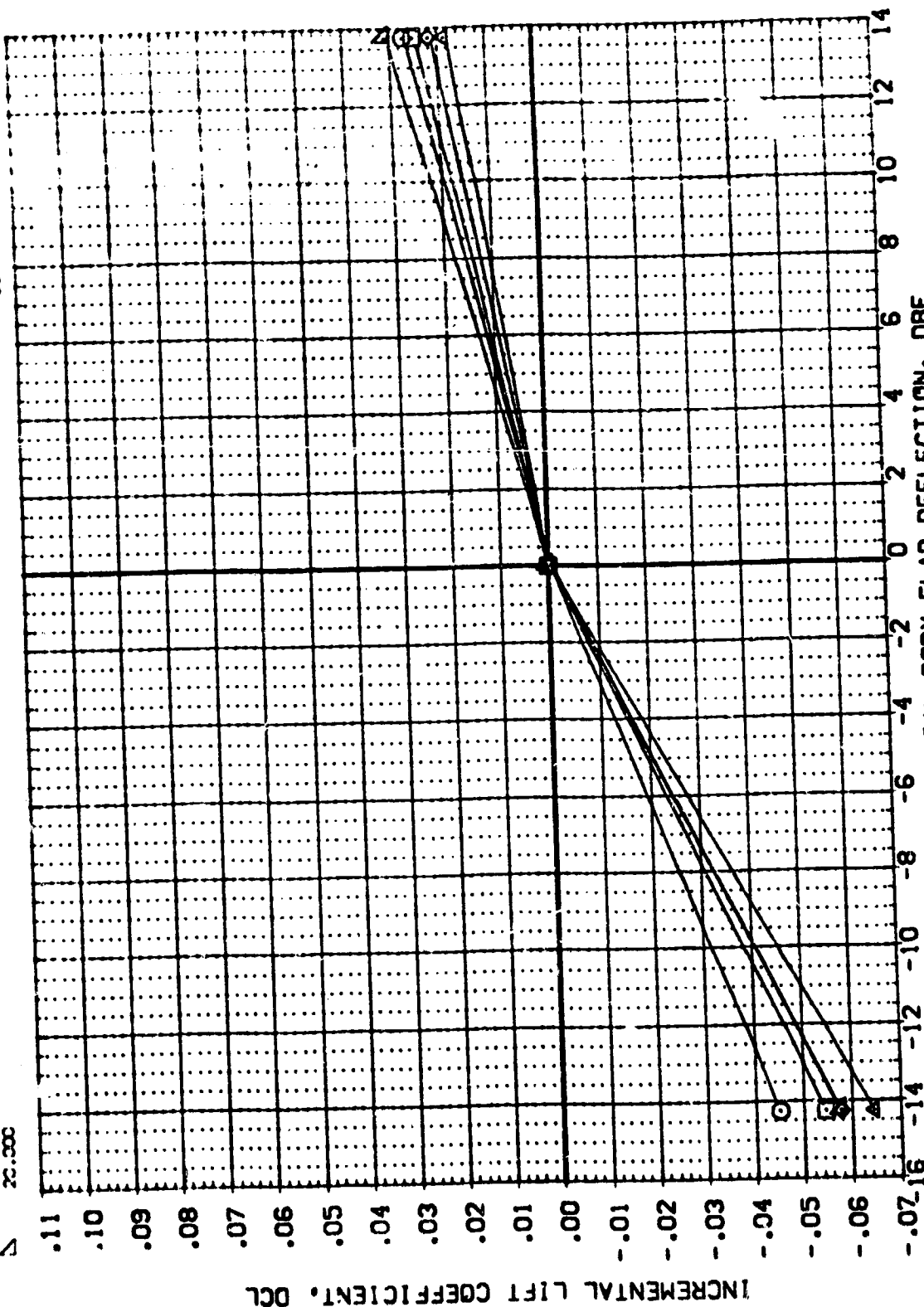
ERIC VALUES
BETA
ALPHA

PARAVETH
.600
.000
999.99C

MACH
ELECTR
SPORTS

ALPHA
:2.000
:4.000
:6.000
:8.000

01704
51881



07.16 -14 -12 -10 -8 -6 -4 -2 0 2 4
INCREMENTAL BODY FLAP DEFLECTION, DBF

FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE

PAGE 1354

(187075)

MSFC 574(0A48) ORB 139 W/ALT NOSE

REFERENCE INFORMATION
 SREF 2690.0000
 LREF 474.8000
 BREF 936.7000
 XREF 838.7000
 YREF .0000
 ZREF .0000
 SCALE .0040

DATA SOURCE
 DBF -14.250
 L87056 13.750

PARAMETRIC VALUES
 .000 BETA
 .000 AILRON
 999.999

ALPHA
 .000
 2.000
 4.000
 6.000
 8.000
 10.000

SYMBOL
 0000
 0000
 0000
 0000
 0000
 0000

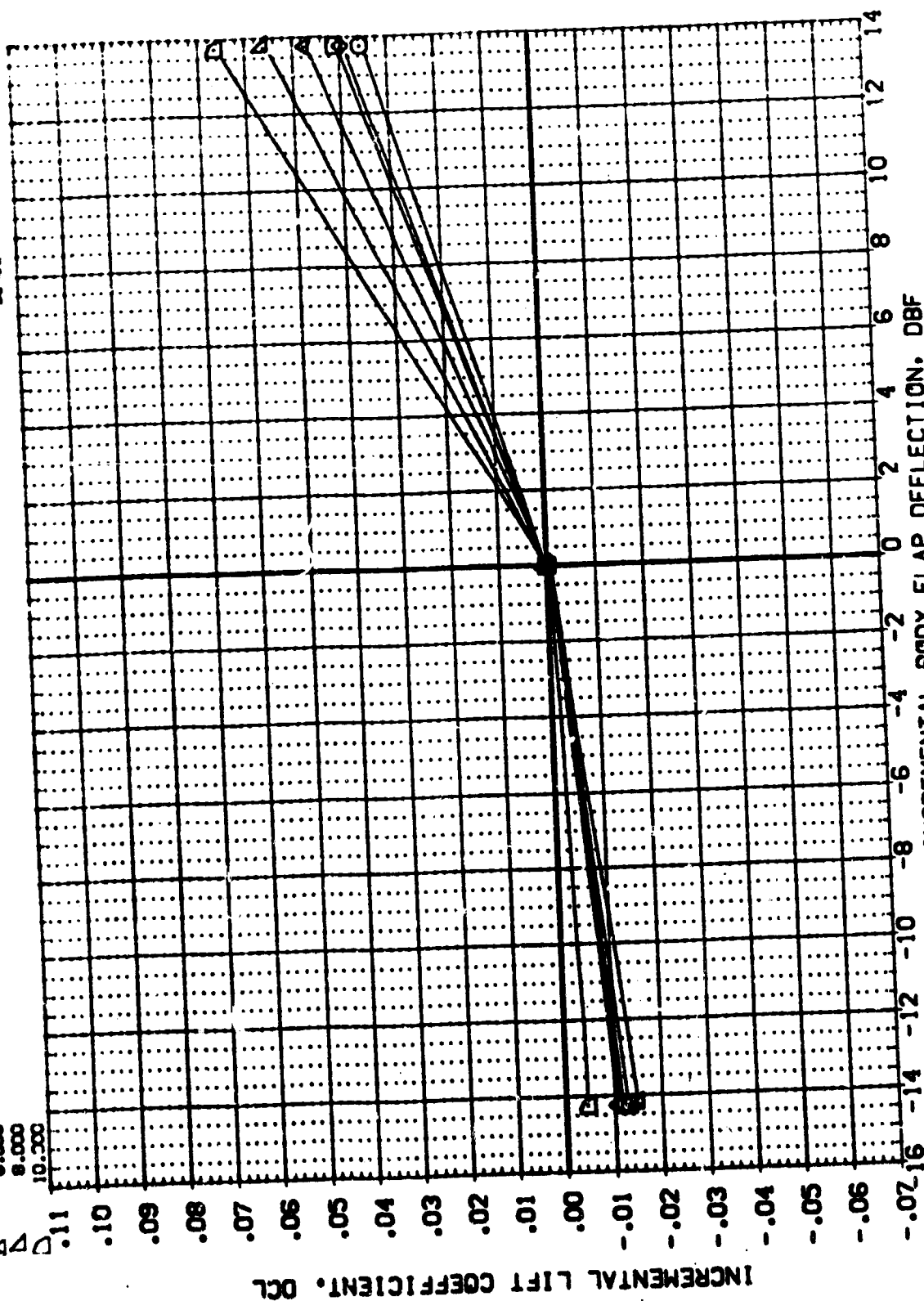


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE

MSFC 574 (CA48) 323 :39 W/A : NCSE

REFERENCE IN COMA 13

3-V-25
00007
00000
00000
13005
13000
13005

88



7066
CASE 7

100-443887-100

525

DATA
-14.27
-13.77

82-7573

3A7A
3A7B
3A7C

88

100-443887-1

DATE: 11/11/1964

NAME: 900-900-900

2 83

AC-119

2 14 0

2 13 0 0 0

12.000
14.000
16.000
18.000

11

100-443885-100
 100-443885-100

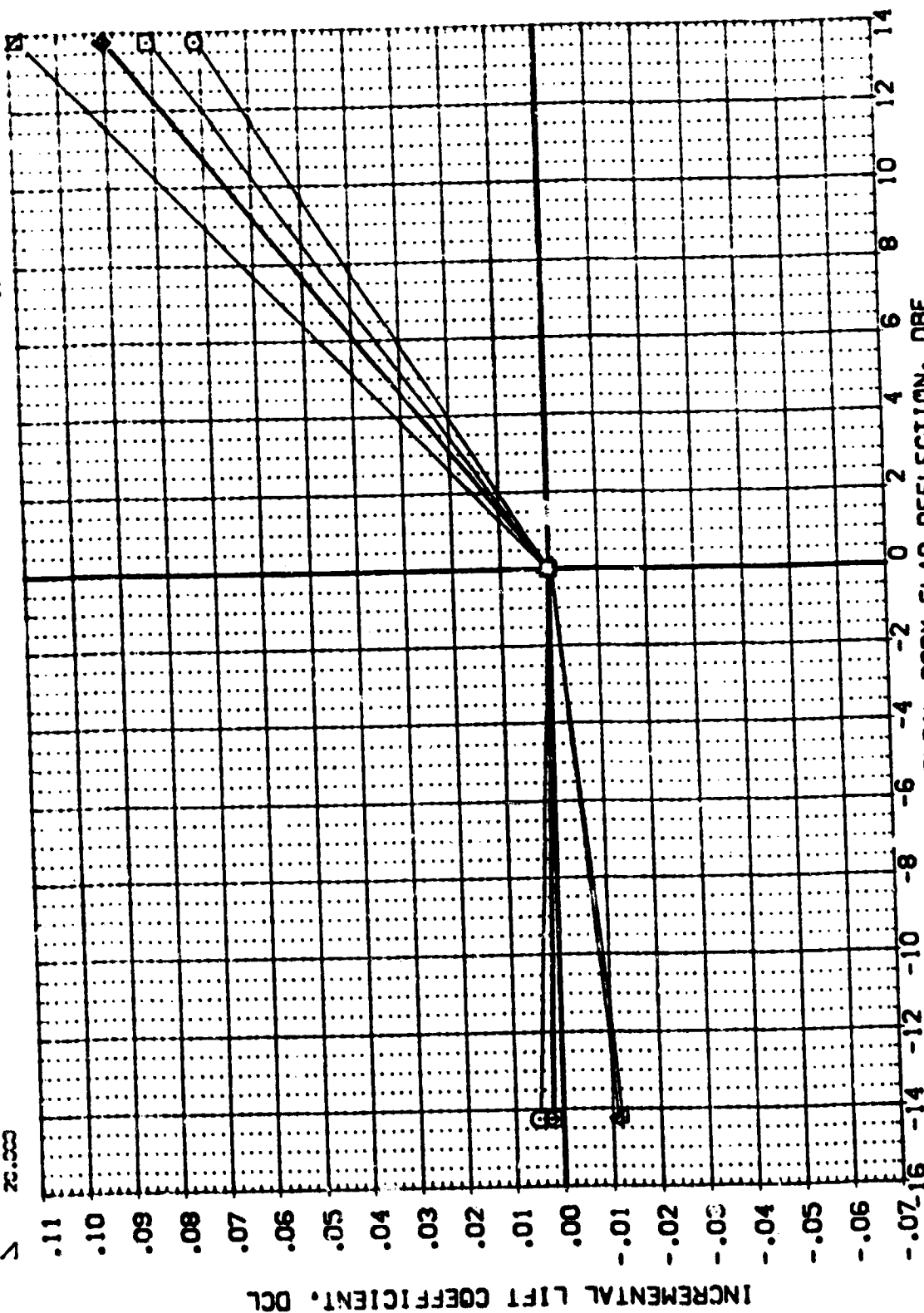


FIG. 37

(187075)

MSFC 574(CA48) ORB 139 W/ALT NOSE

REFERENCE INFORMATION
 SREF 2690.0000
 LREF 474.6000
 BREF 936.7000
 MREF 838.7000
 YREF .0000
 ZREF .0000
 SCALE .0040

DATA SOURCE

DBF -14.250
 13.750

PARAMETRIC VALUES

BETA .000
 AILRON .000
 988.980

WACH

ELEVTR
 9758K

ALPHA

.000
 2.000
 4.000
 6.000
 8.000
 10.000

SYMBOL

Q1 Q2 Q3 Q4 Q5 Q6 Q7 Q8 Q9 Q10 Q11 Q12 Q13 Q14 Q15 Q16 Q17 Q18 Q19 Q20 Q21 Q22 Q23 Q24 Q25 Q26 Q27 Q28 Q29 Q30 Q31 Q32 Q33 Q34 Q35 Q36 Q37 Q38 Q39 Q40 Q41 Q42 Q43 Q44 Q45 Q46 Q47 Q48 Q49 Q50 Q51 Q52 Q53 Q54 Q55 Q56 Q57 Q58 Q59 Q60 Q61 Q62 Q63 Q64 Q65 Q66 Q67 Q68 Q69 Q70 Q71 Q72 Q73 Q74 Q75 Q76 Q77 Q78 Q79 Q80 Q81 Q82 Q83 Q84 Q85 Q86 Q87 Q88 Q89 Q90 Q91 Q92 Q93 Q94 Q95 Q96 Q97 Q98 Q99 Q100

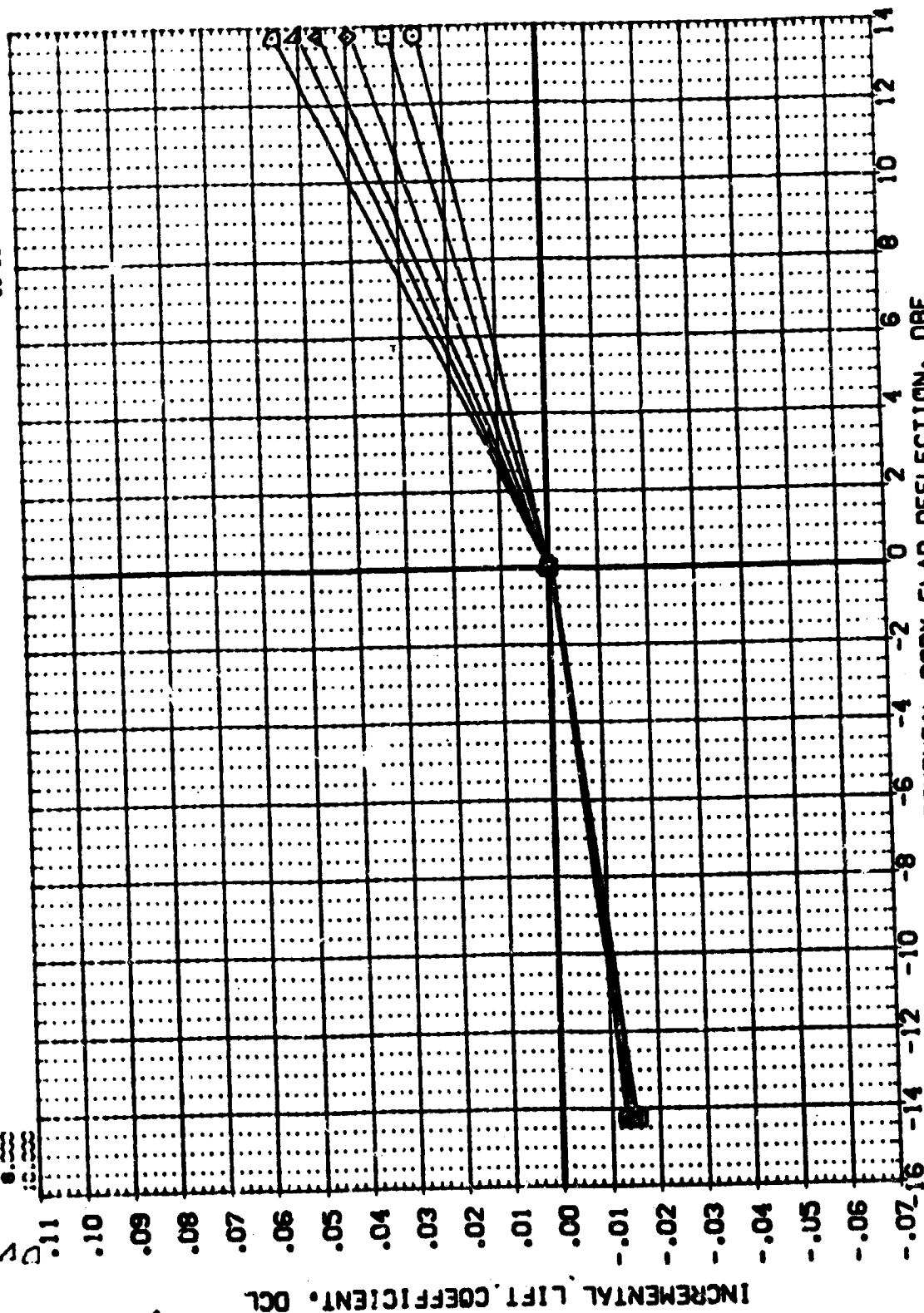


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE

(L87075)

MSFC 574(CA48) CRB 139 W/ALT NOSE

REFERENCE INFORMATION
 SREF 2690.0000
 REF 474.8000
 SREF 936.7000
 REF 838.0000
 XREF 0.0000
 YREF 0.0000
 ZREF 0.0000
 SCALE 100.00

DATA SOURCE
 DBF .000
 DATASET L87066
 DBF -14.250
 DATASET L87075
 DBF 13.750

PARAMETRIC VALUES
 MACH 1.200
 BETA .000
 AILRON 999.990

WACH
 ELEVTR
 SPOBRK

ALPHA
 12.000
 14.000
 16.000
 18.000
 20.000

SYMBOL
 0
 1
 2
 3
 4

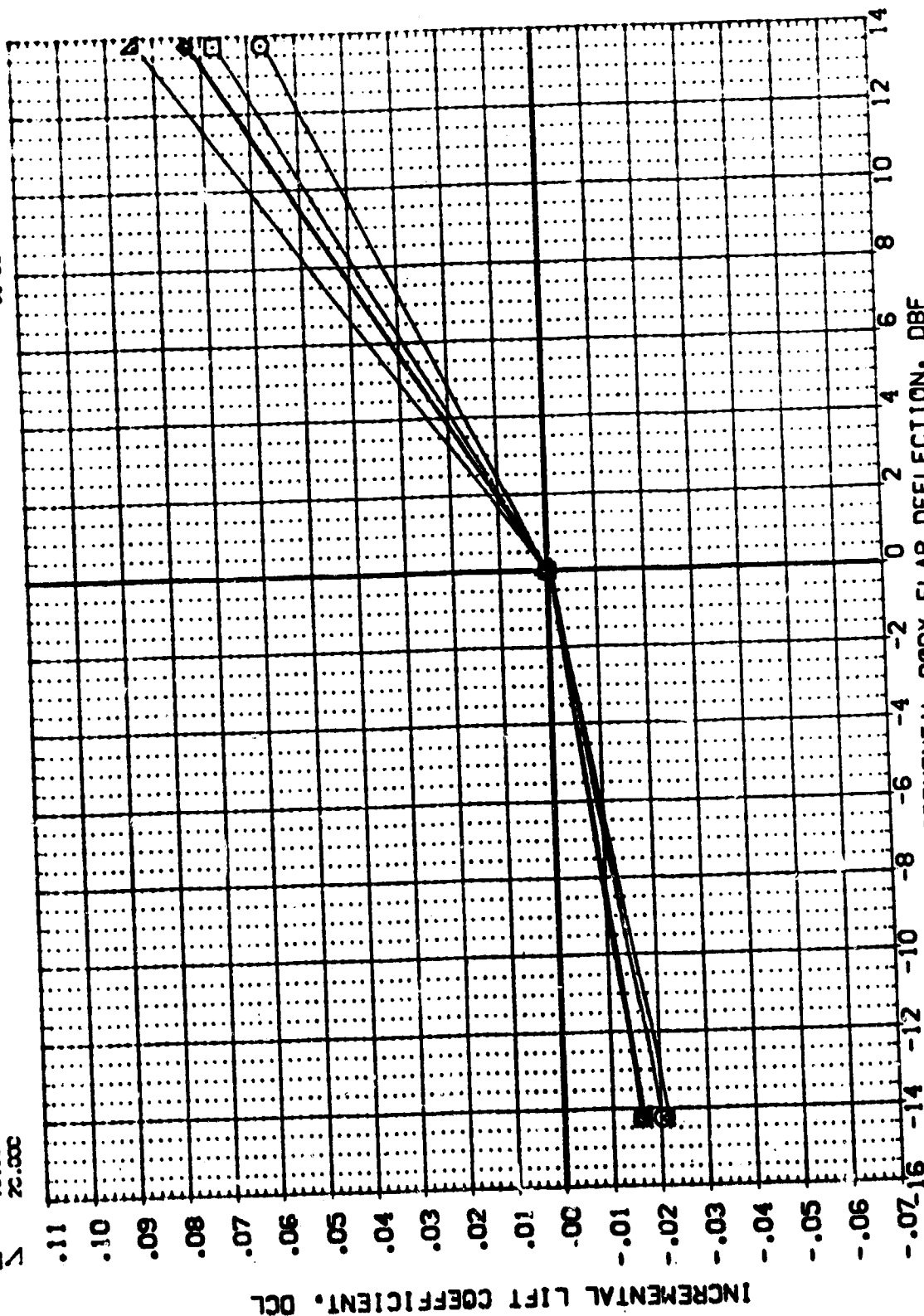


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE

(L87075)

VSFC 574(CA48) ORB 139 W/ALT NOSE

REFERENCE INFORMATION
 SREF 269C 0000
 LREF 47A 8000
 BREF 936 7000
 MREF 838 7000
 VREF 0000
 ZREF 0000
 SCALE 0040

DATA SOURCE
 DBF .000
 DATASET L87055
 DBF -14.250
 DATASET L87073

PARAMETRIC VALUES
 MACH 1.910
 ELEVTR 0.000
 SPOBRK 999.990
 BETA 0.000
 AILRON 0.000

SPAC. A.DVA
 .000
 2.000
 4.000
 6.000
 8.000
 10.000

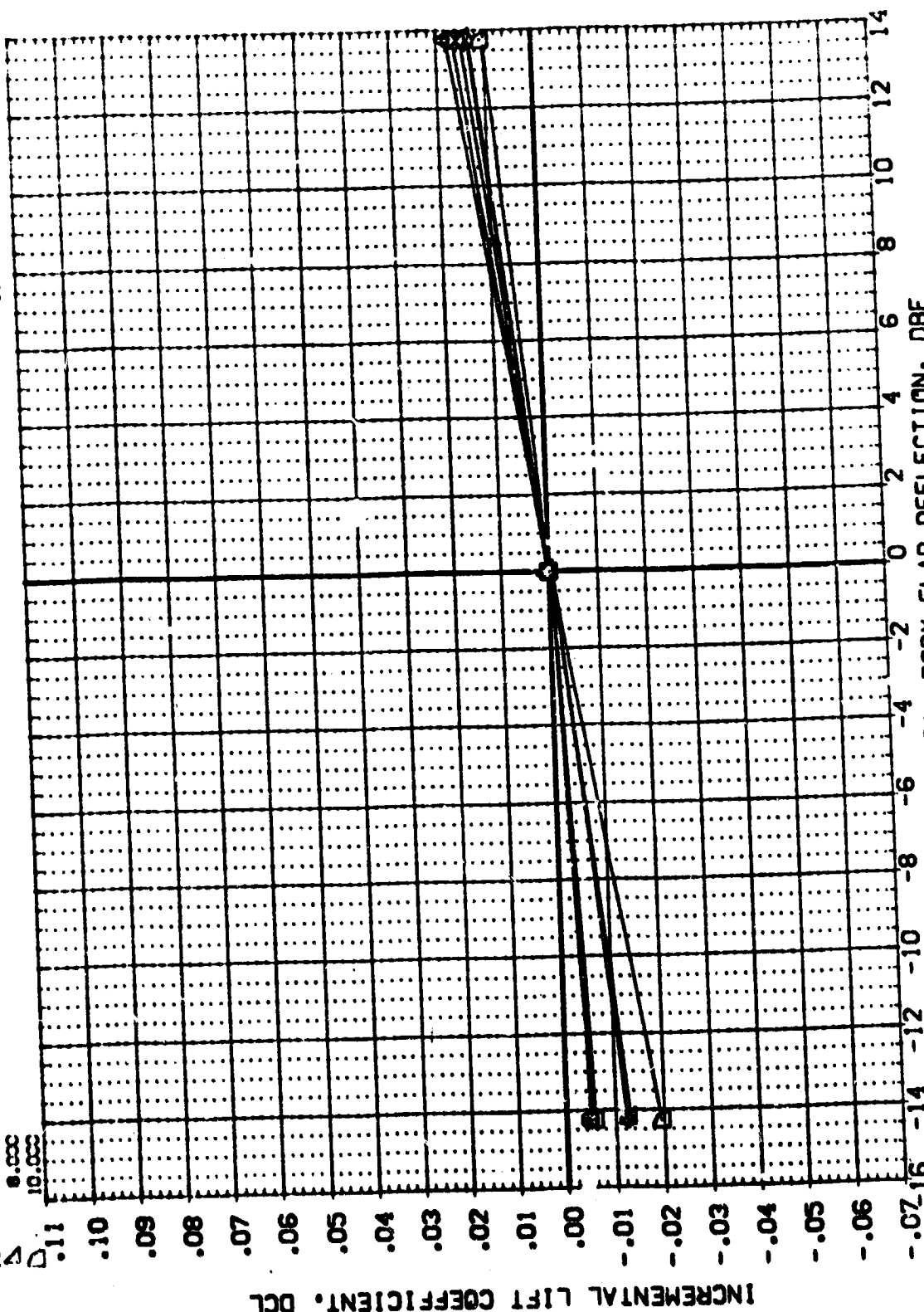


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE
 INCREMENTAL BODY FLAP DEFLECTION, DBF
 PAGE 1359

(L87075)

MSFC 574(0A48) ORB 139 W/ALT NOSE

REFERENCE INFORMATION
 SREF 769C 0000
 LREF 474 8000
 BREF 936 7000
 XREF 838 7000
 YREF 0000
 ZREF 0000
 SCALE 0040

DATA SOURCE
 DBF .000
 DATASET L87056
 DBF -14.250
 DATASET L87075
 DBF 13.750

PARAMETRIC VALUES
 BETA 1.950
 AILRON .000
 999.990

MACH
 ELEVTR
 SPDRM

ALPHA
 2.000
 4.000
 6.000
 8.000
 20.000

SYMBOL
 1
 2
 3
 4
 5

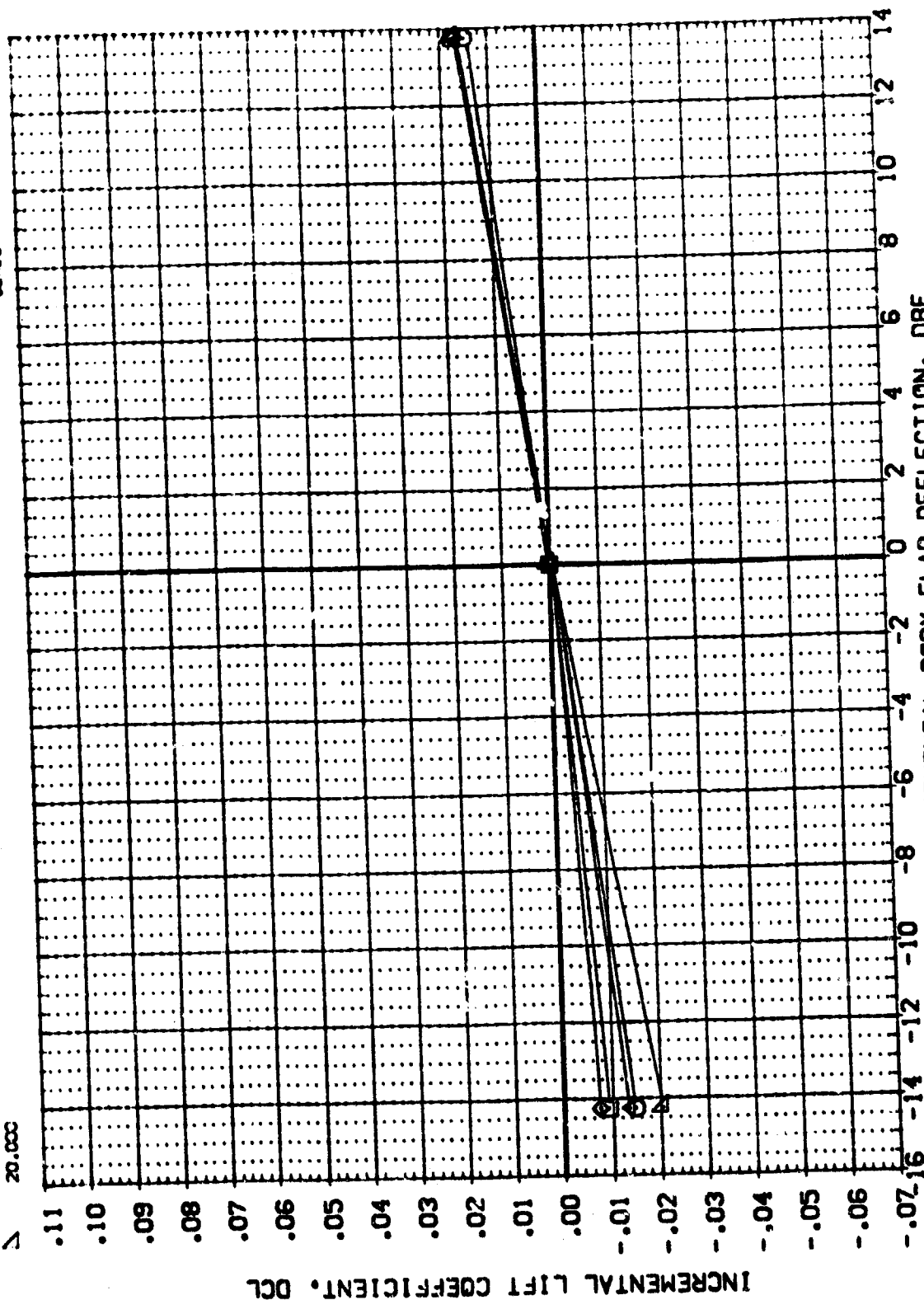


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE

(L87075)

MSFC 574(0A48) ORB 139 W/ALT NOSE

SYMB. ALPHA MACH ELEVTR SPDRK

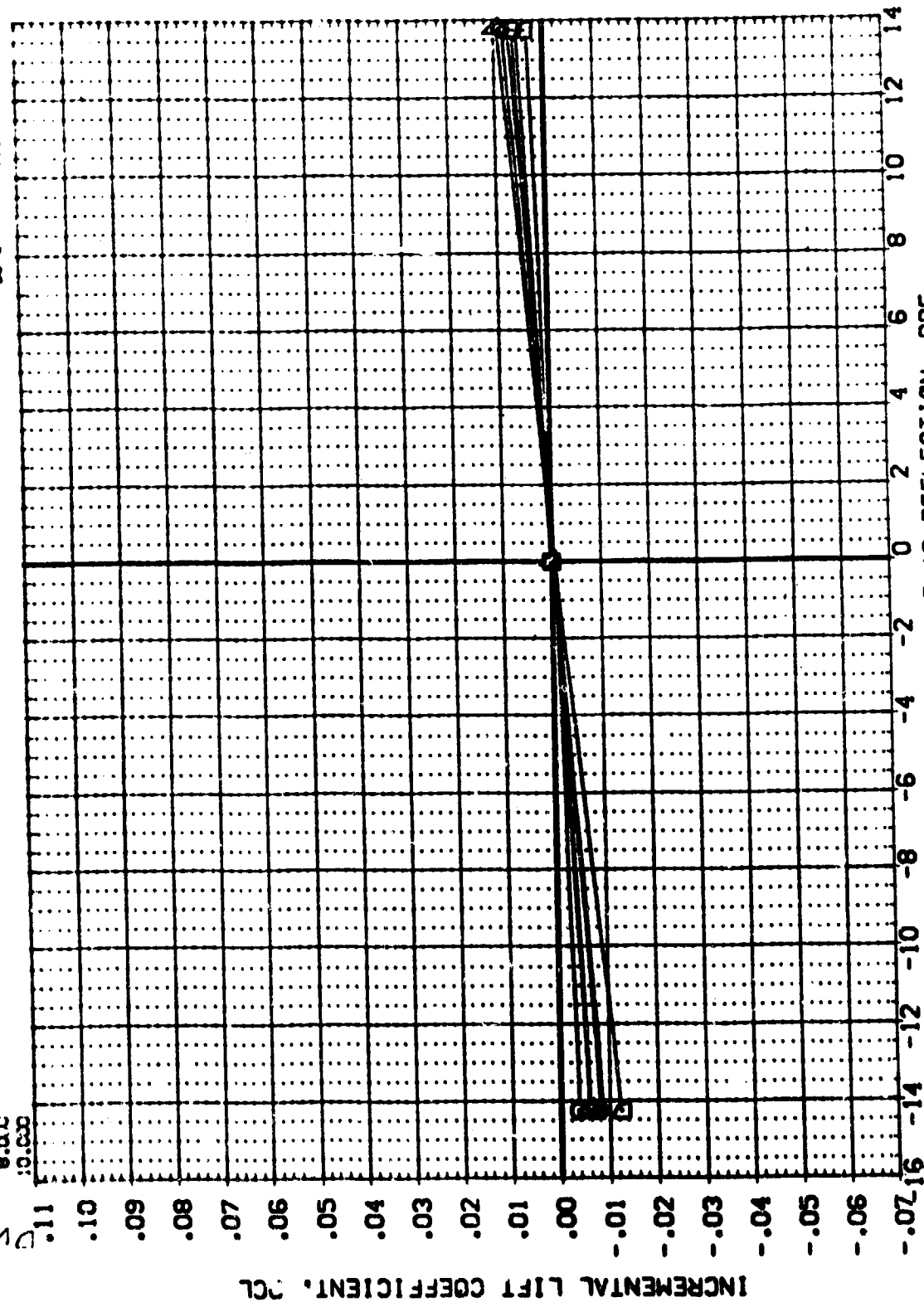
PARAMETRIC VALUES
2.090 BETA
.000 AILRON
999.99C

DATA SOURCE
DBF
-14.250
13.750

DATASET
DBF
L87066

REFERENCE INFORMATION
SREF 269C.000C
LREF 474.800C
SREF 936.700C
LREF 838.700C
SREF 1000.000C
LREF 1000.000C
SCALE 10000

SYMB. ALPHA .000
2.000
4.000
6.000
8.000
10.000



INCREMENTAL BODY FLAP DEFLECTION, DBF

FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE

(L87075)

MSFC 574(0A48) ORB 139 W/AL NOSE

SYMBOL
ALPHA
12.000
14.000
16.000
18.000
20.000

PARAMETRIC VALUES
MACH 2.950
ELEVTR 0.000
SPCLBRK 999.950
BE'A
ALLCON

DATA SOURCE
DBF
-14.250
-13.750

DATASET
DBF
L87075
L87073

REFERENCE INFORMATION
SPR 2680.0000
RES 474.8000
EXP 926.0000
MACH 8.38
XREF 10000000
YREF 10000000
ZREF 10000000
SCALE

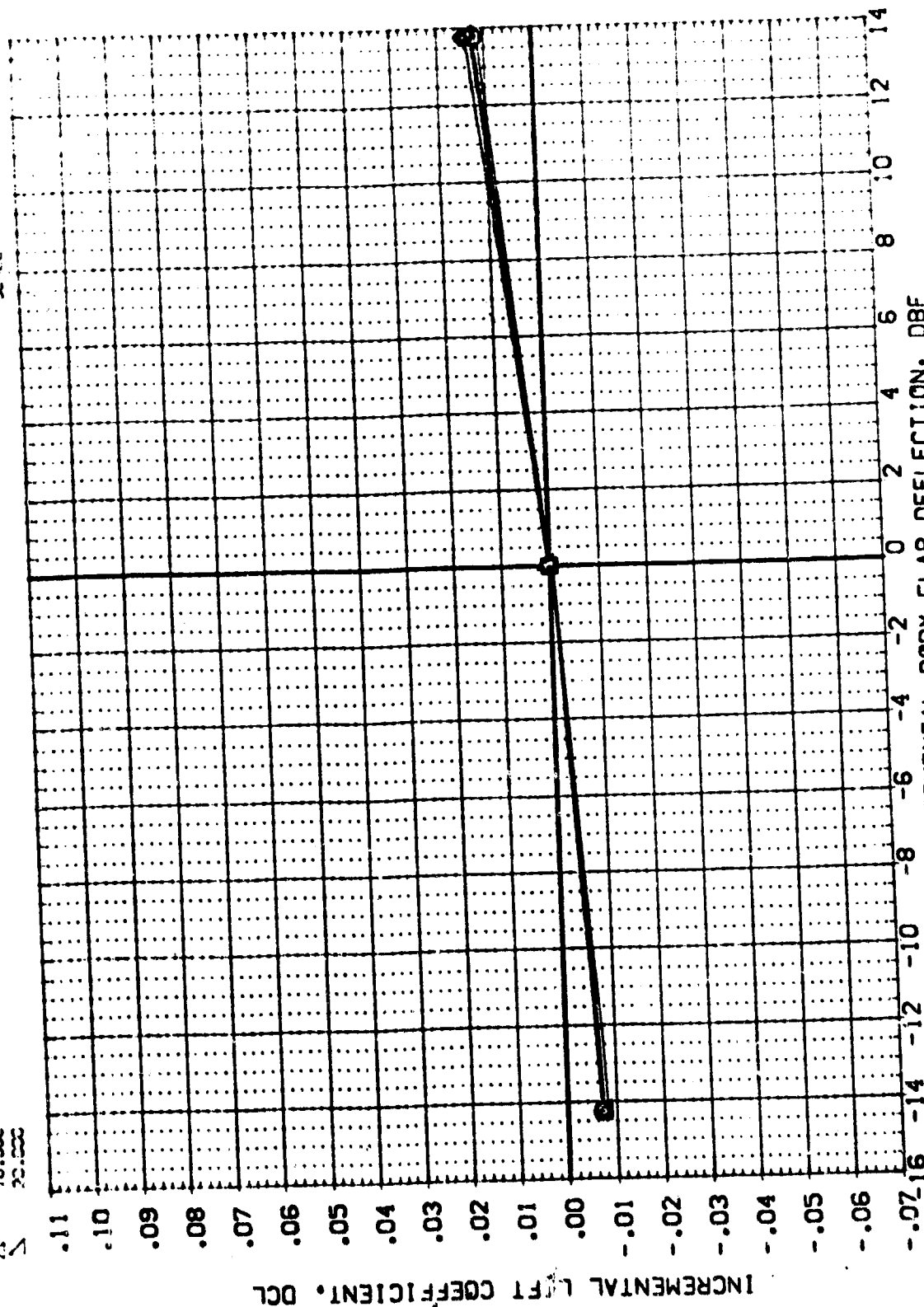


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE
PAGE 1362

MSFC 574(0A) CRB 139 W/ALT NOSE

(187075)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DBF	DBF	SCALE
○	.000		4.950		.000			2690.0000
□	2.000	ELEVTR	.000		.000			474.8000
◇	4.000	SPODRK	999.990		.000			936.7000
△	6.000			14.250				838.7000
▽	8.000			13.750				.0000
△	10.000							.0000
								.0040

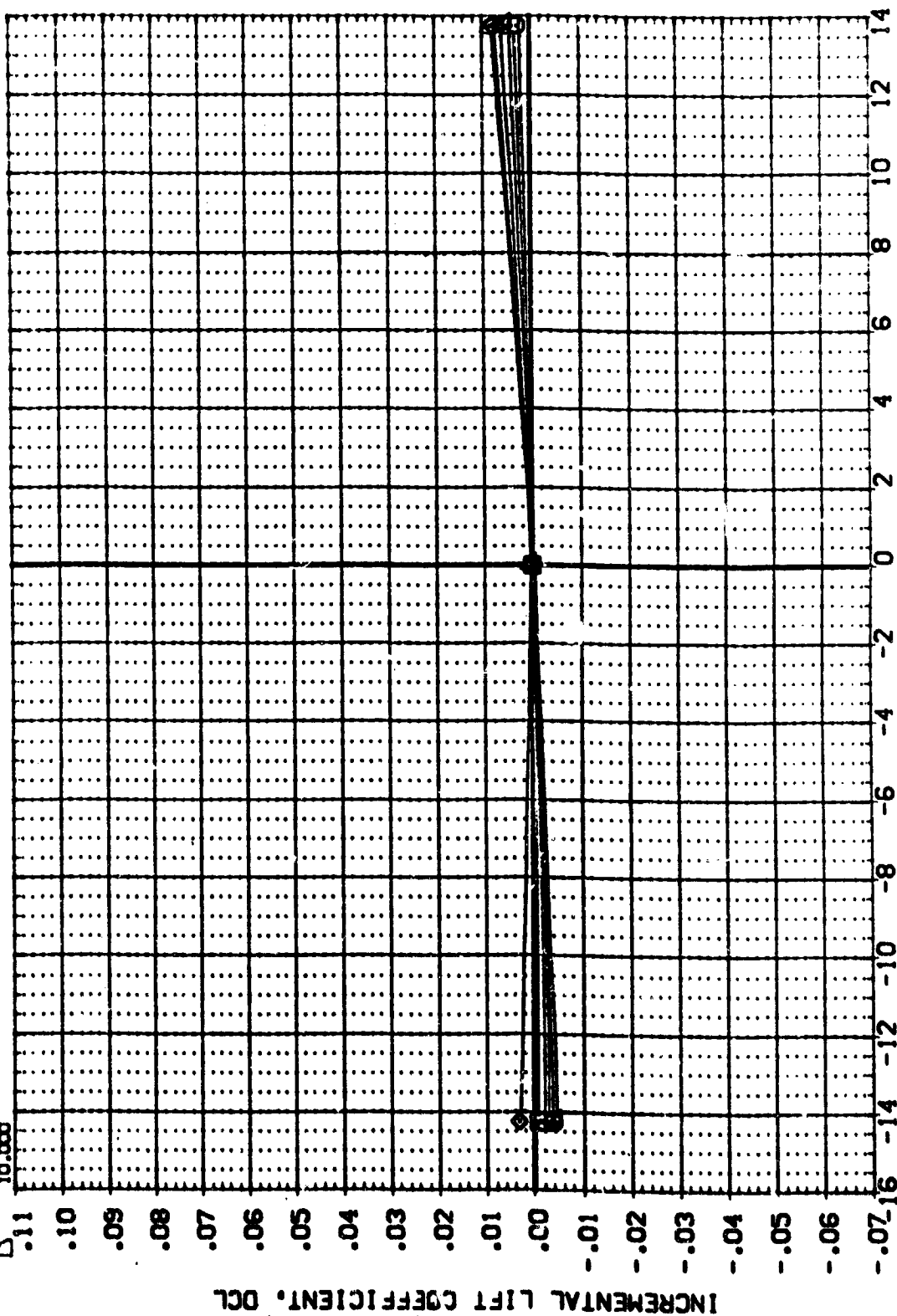


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE

(L87075)

MSFC 574(0A48) ORB 139 W/ALT NOSE

REFERENCE INFORMATION
 SREF 7690.0000
 LREF 474.8000
 BREF 936.7000
 XPRP 838.7000
 YPRP .0000
 ZPRP .0000
 SCALE .0040

DATA SOURCE

DBF
 -14.250
 13.750

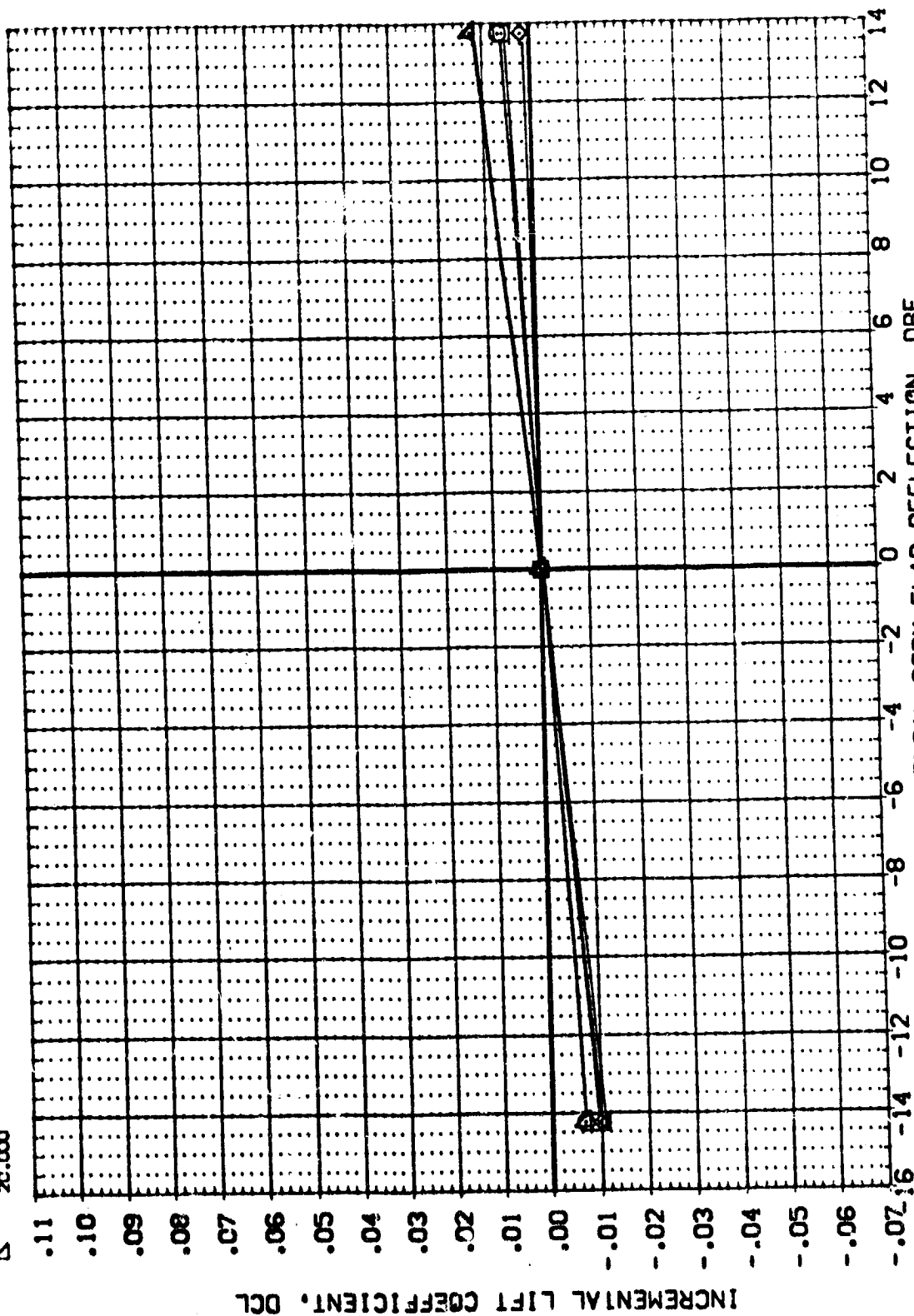
PARAMETRIC VALUES

BETA
 4.960
 AILRON
 .000
 999.990

MACH
 4.960
 ELEVTR
 .000
 999.990

ALPHA
 12.000
 14.000
 16.000
 18.000
 20.000

SYMBOL
 □
 ◇
 △
 ▽



INCREMENTAL BODY FLAP DEFLECTION, DBF

FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE

MSFC 574(0A48) ORB 139 W/ALT NOSE

(L87076)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE	DATASET	DBF	DATASET	DBF	SREF	REFERENCE INFORMATION	
○	20.000		2.990	BETA		.000	L87076		.000	LREF	2690.0000	SCAL
□	22.000	ELEVTR	.000	AILRON	-14.250		L87076			BREF	474.8000	77
◇	24.000	SPOBRK	999.990		13.750		L87074			NREF	936.7000	77
△	26.000									VREF	838.7000	77
▽	28.000									ZREF	.0000	77
○	30.000									ZHREF	.0000	77
										SCALE	.0040	77

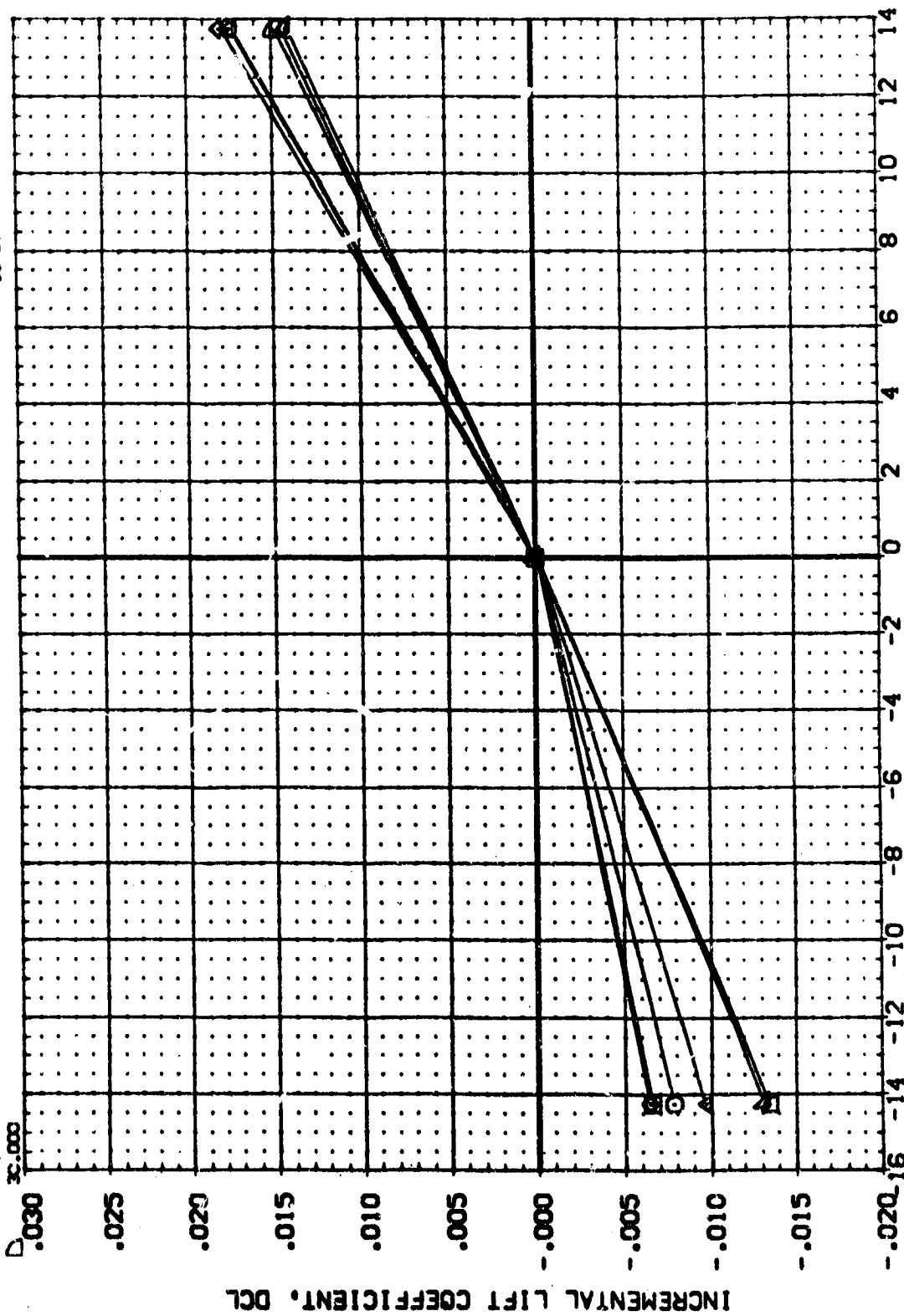


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE

(L87076)

MSFC 574(0A48) CRB 139 W/ALT NOSE

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DBF	REFERENCE INFORMATION
□	32.000	ELEVTR	2.990 BETA	DBF	.000	SREF	2690.0000
◇	34.000	SPOBRK	.000 AILRON	L87067	.000	LREF	474.8000
△	36.000		999.990	L87076		SREF	936.7000
	38.000			L87074		XREF	838.7000
	40.000					YREF	.0000
						ZREF	.0000
						SCALE	.0040

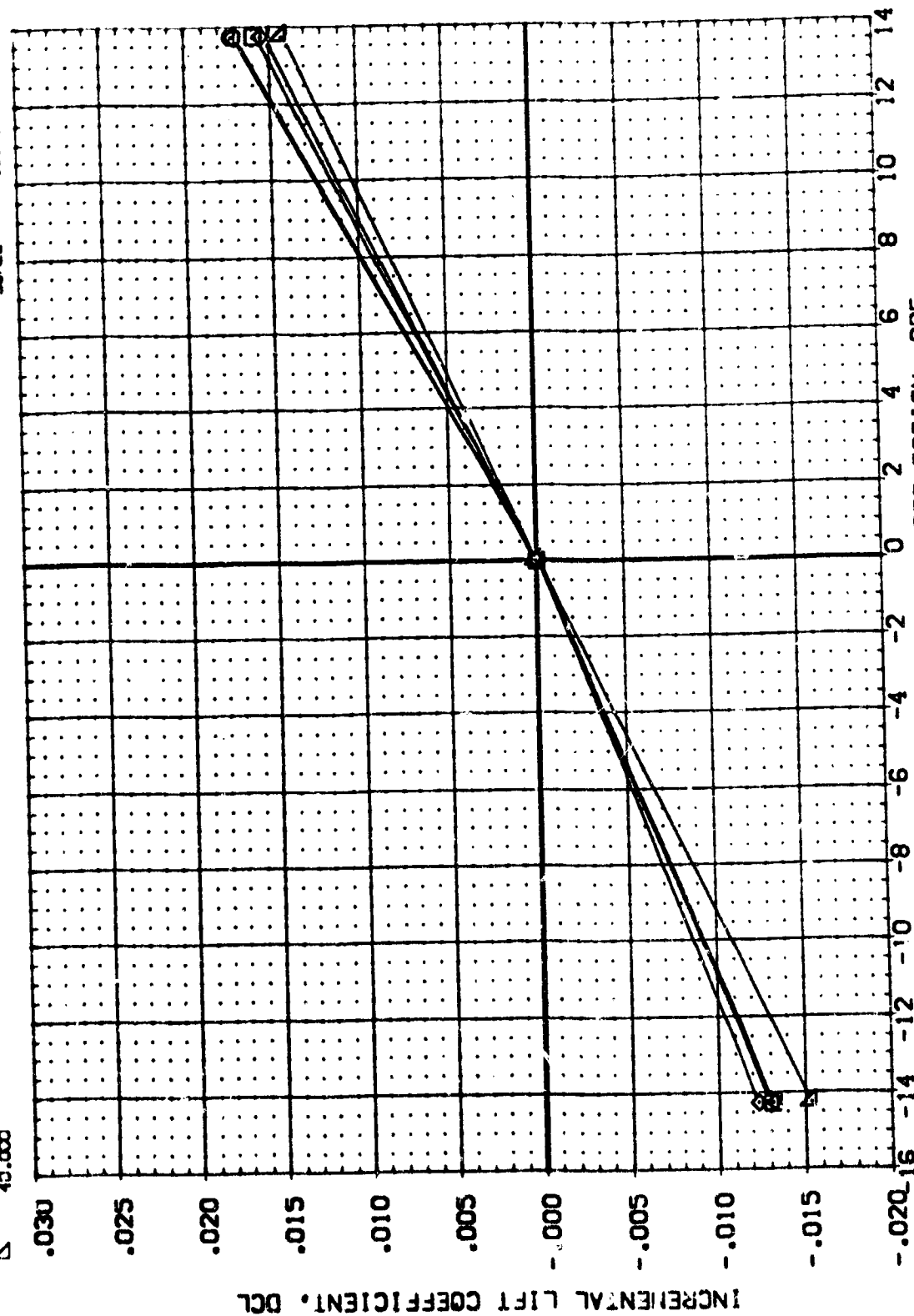
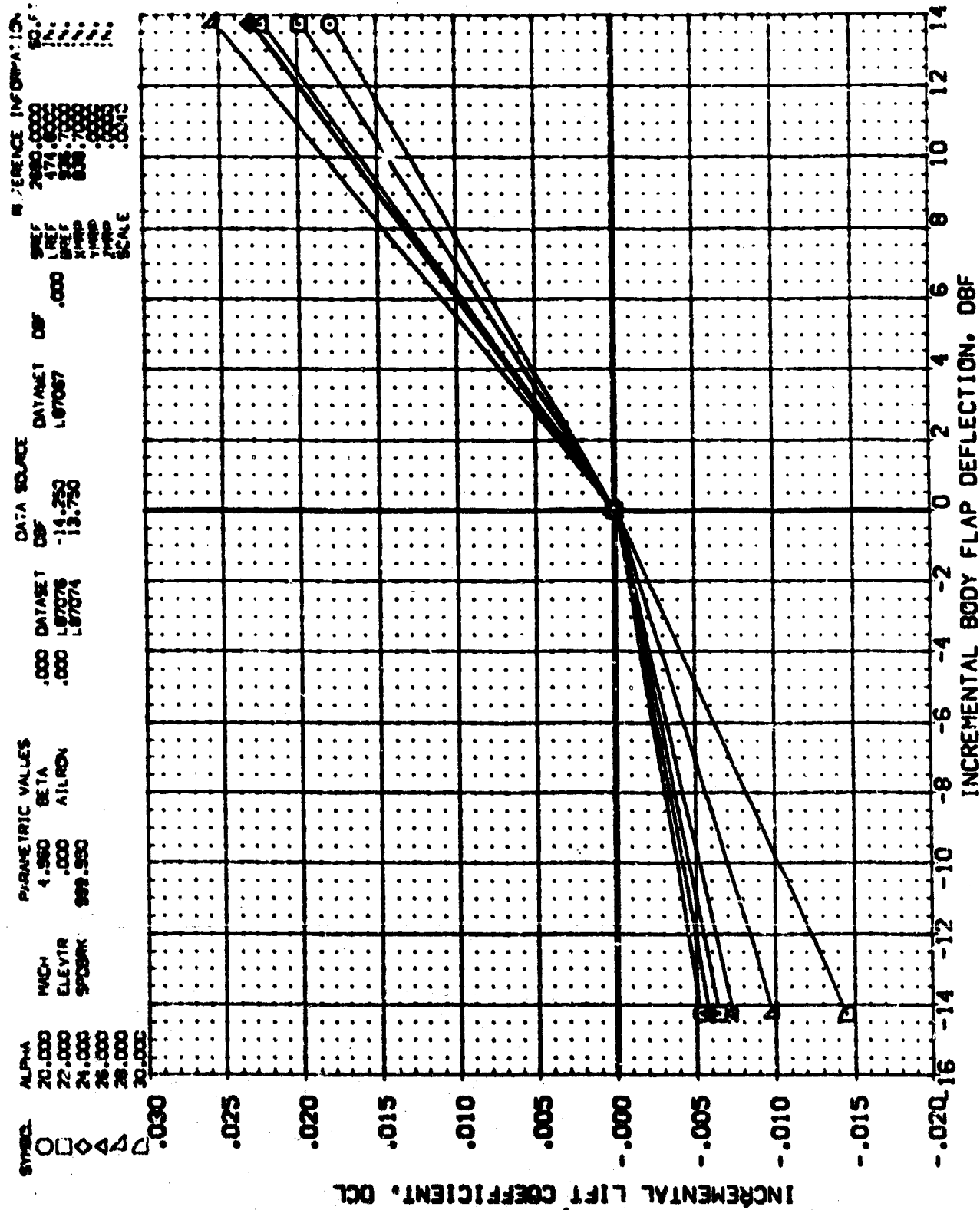


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE

MSFC 574(0A48) ORB 139 W/ALT NOSE

(L87076)



ALPHA
32,000
34,000
36,000
38,000
40,000

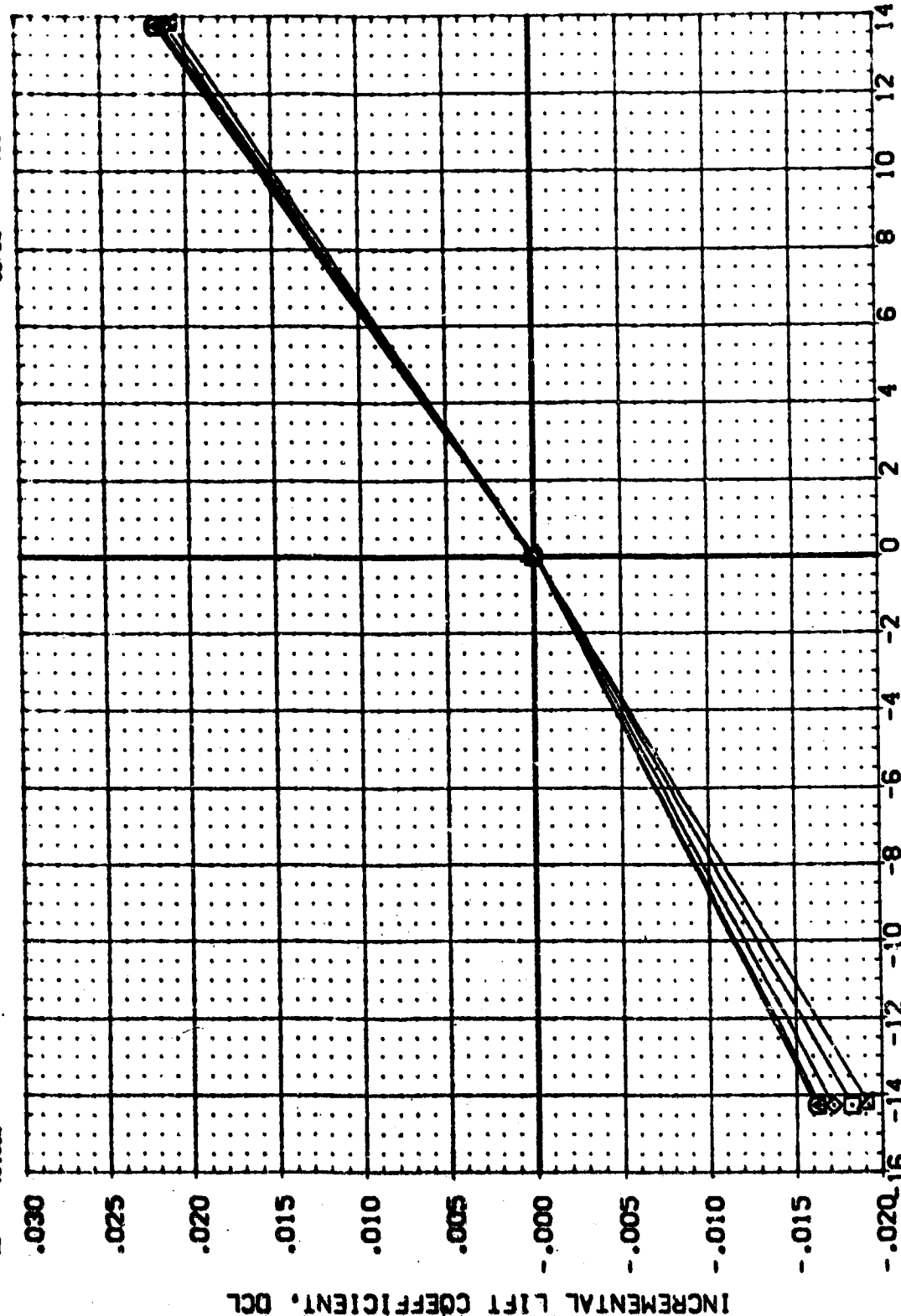


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE



MSFC 574(0A48) ORB 139 W/ALT NOSE (*87075)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	BETA	DATASET	DBF	SREF	SQ.FT.
.000	1.980	.000	.000	2650.0000	IN.
2.000	.000	+87075		474.8000	IN.
ELEVTR	AILRON			SREF	IN.
4.000	989.980			938.7000	IN.
SPDRK				XREF	IN.
				YREF	IN.
				ZREF	IN.
				SCALE	.0010

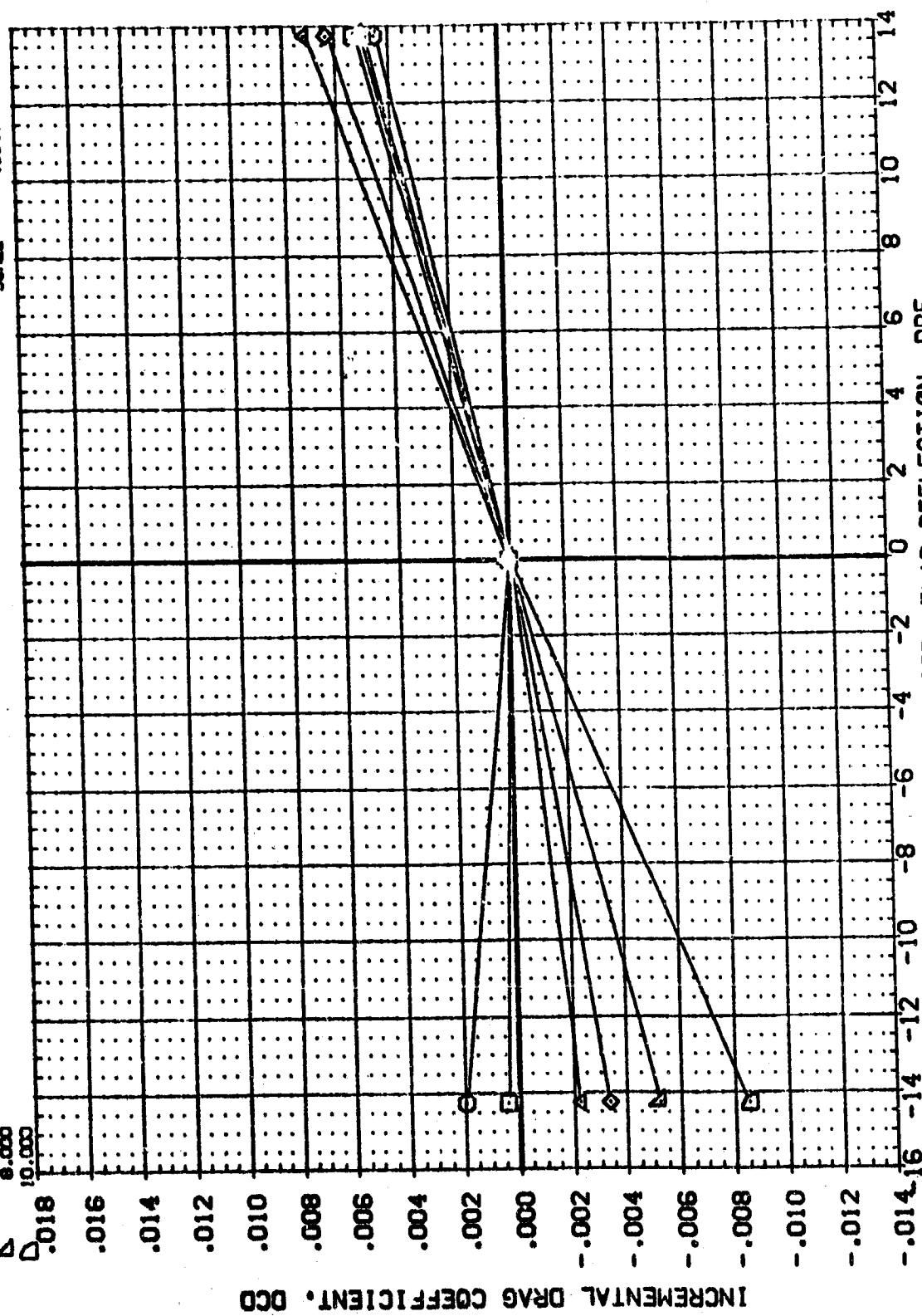


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE
PAGE 1369

(*87075)

MSFC 574(0A48) ORB 139 W/ALT NOSE

PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
SYMBOL	ALPHA	MACH	BETA	DBF	DBF	SREF	SO.FT.		
○	12.000	1.960	0.000	.000	.000	LREF	2650.0000	IN.	
□	14.000	ELEVTR	0.000	.000	.000	BREF	474.8000	IN.	
◇	16.000	SPDRK	999.990	.000	.000	YMRP	938.7000	IN.	
△	18.000			.000	.000	ZMRP	838.7000	IN.	
▲	20.000			.000	.000	SCALE	.0000	IN.	

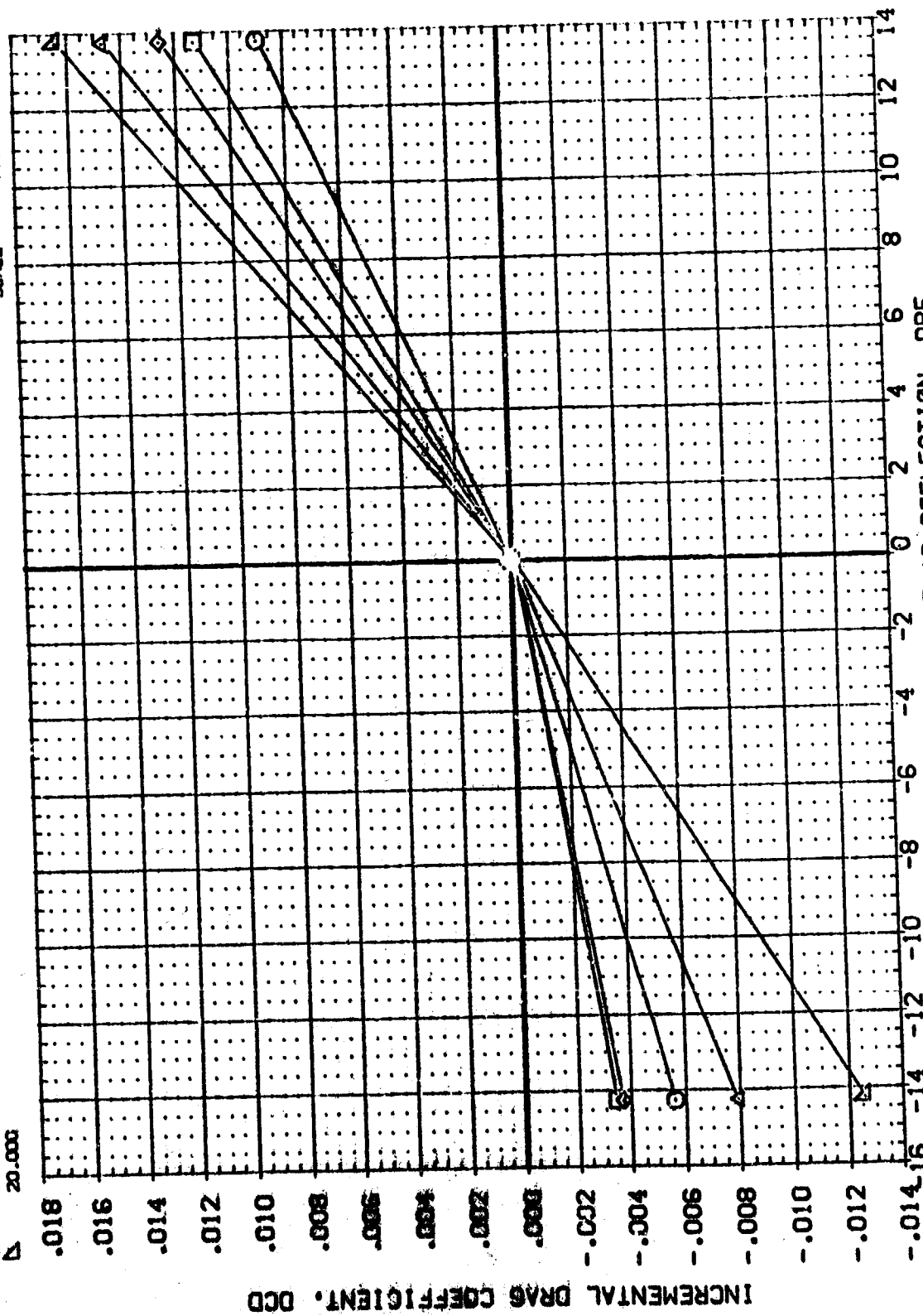


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE

[*87075]

REFERENCE INFORMATION	50. FT.
2690.0000	IN.
474.6000	IN.
936.7000	IN.
038.7000	IN.
0000	IN.
0000	IN.
0040	IN.



FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE

MSFC 57A(0A48) ORB 139 W/ALT NOSE

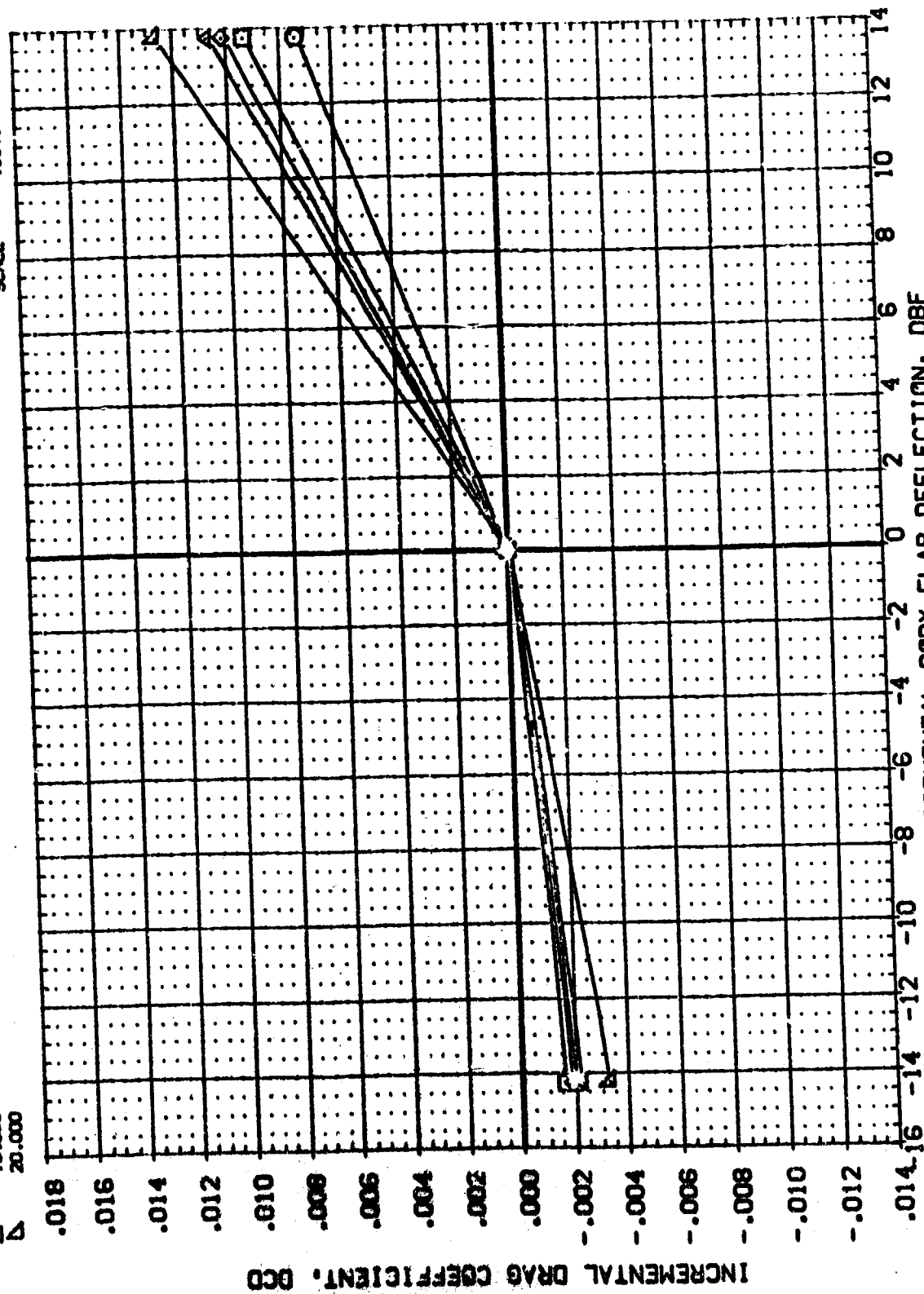
[illegible]

FIG. 37

[*87075]

REFERENCE INFORMATION	SG.FT.
2850.0000	IN.
474.5000	IN.
936.7000	IN.
538.7000	IN.
0000.0000	IN.
0000.0000	IN.
0040.0000	IN.

DATA SOURCE
IBF
-14.230
13.750

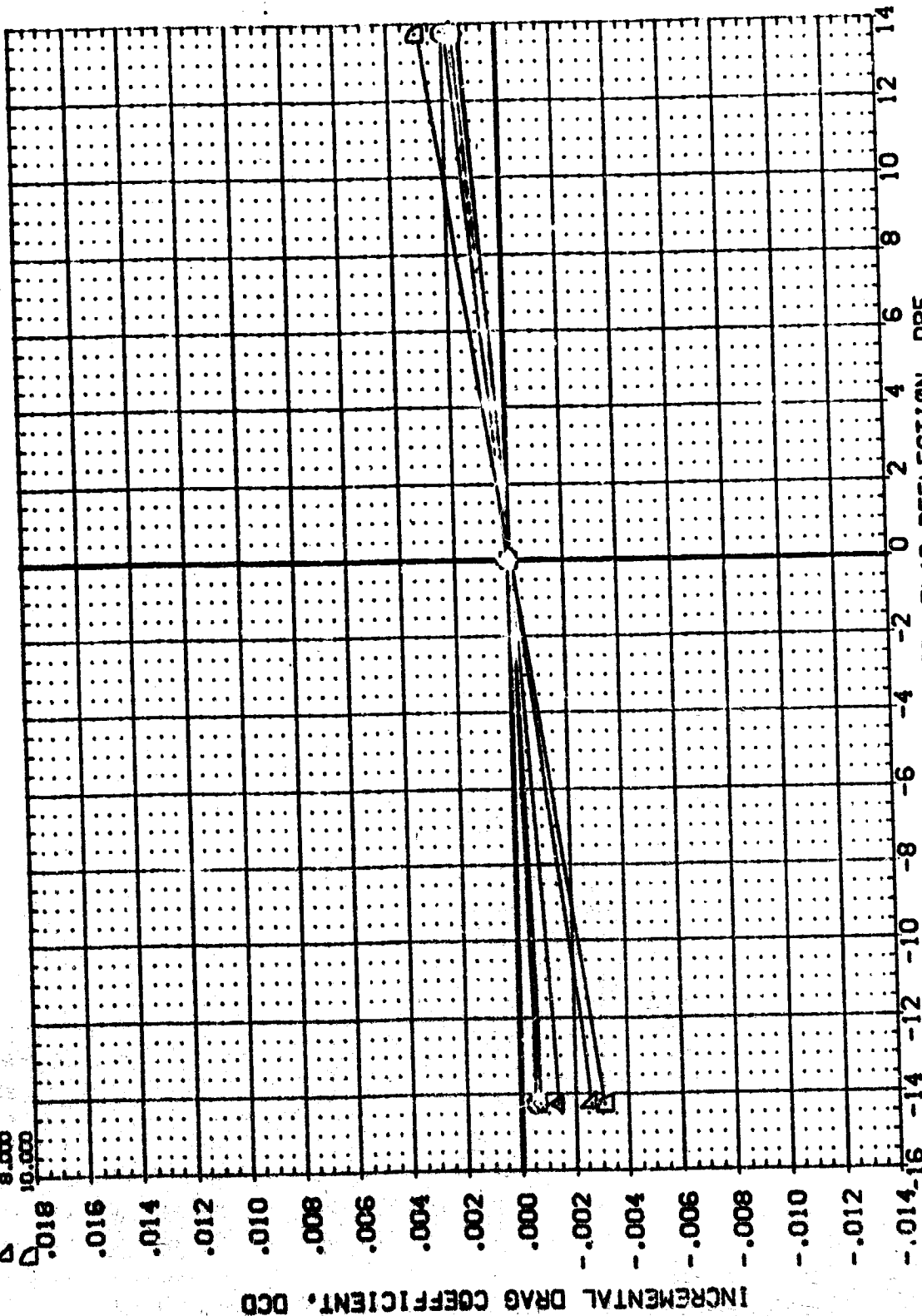
	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377
--	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------

PARAMETRIC VALUES

4.960	BETA
.000	AIRLON
999.990	

WASH
STATE
SPORTS

ALPHA
1.000
2.000
4.000
6.000
8.000
10.000

Symed

014.16 -14 -12 -10 -8 -6 -4 -2 0
INCREMENTAL BODY FLAP DEFLECTION, DBF
INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE
FIG. 37 PAGE 1373

(*87075)

MSFC 574(0A48) ORB 139 W/ALT NOSE

PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION	
SYMBOL	VALUE	UNIT	DBF	DBF	SO.FT.	IN.
ALPHA	12.000	DEG	.000	.000	2680.0000	IN.
MACH	4.960	BETA	.000	.000	474.8000	IN.
ELEVTR	.000	AILRON	.000	.000	938.7000	IN.
SPDRK	999.990		.000	.000	838.7000	IN.
	14.000		.000	.000	.0000	IN.
	16.000		.000	.000	.0000	IN.
	18.000		.000	.000	.0000	IN.
	20.000		.000	.000	.0000	IN.

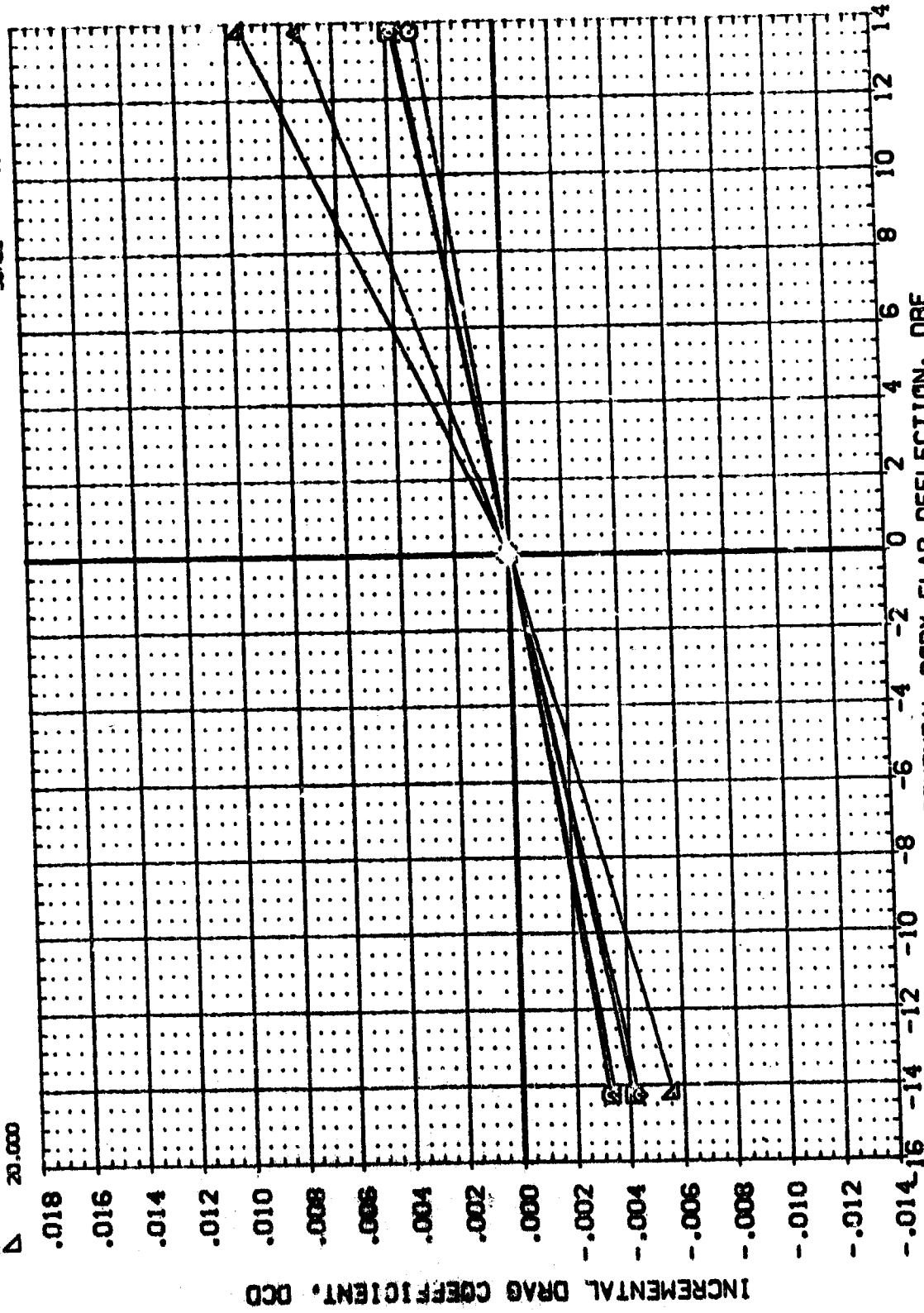


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE



MSFC 574(0A48) ORB 139 W/ALT NOSE

(L87076)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	WIND	DEF	DBF	SREF	SQ.FT.
20.000	2.950	.000	.000	474.8000	IN.
22.000	.000	L87076	L87057	536.7000	IN.
24.000	599.990	-14.250		638.7000	IN.
26.000		13.750		.0000	IN.
28.000				.0000	IN.
30.000				.0040	IN.
				SCALE	

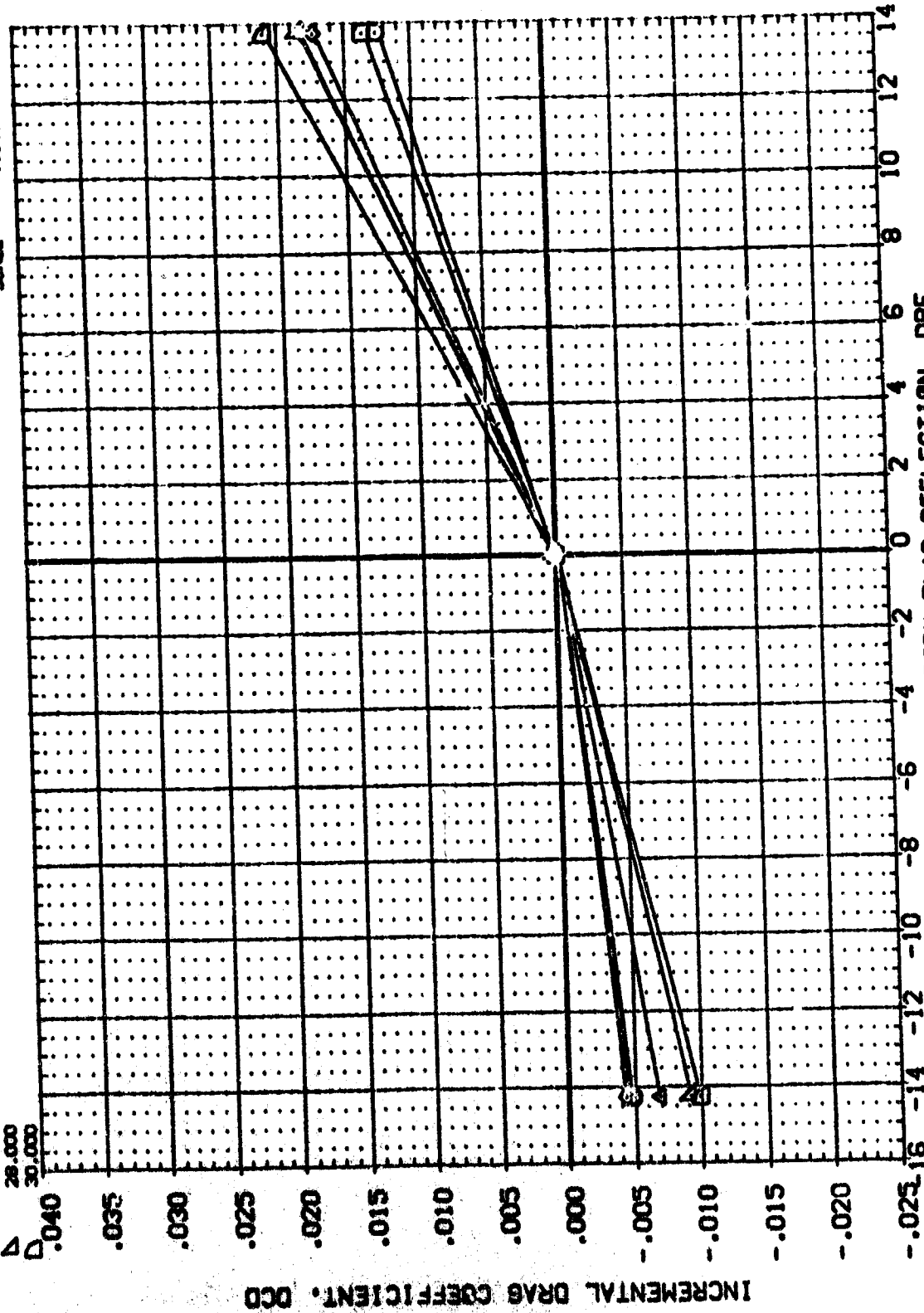


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE

(L87076)

MSFC 574(0A48) ORB 139 W/ALT NOSE

SYMBOL ALPHA
□ 32.000
◇ 34.000
△ 36.000
▽ 38.000
▲ 40.000

PARAMETRIC VALUES
MCH 2.990
ELEVTR .000
SPDRK 989.990

BETA
AIRCON

DATASET
L87076
L87074

DATA SOURCE
DBF -14.250
13.750

DATASET DBF
L87067

REFERENCE INFORMATION
SREF 2893.0000
LREF 474.8000
BREF 935.7000
YREF 638.7000
ZREF 60.0000
SCALE 10.000

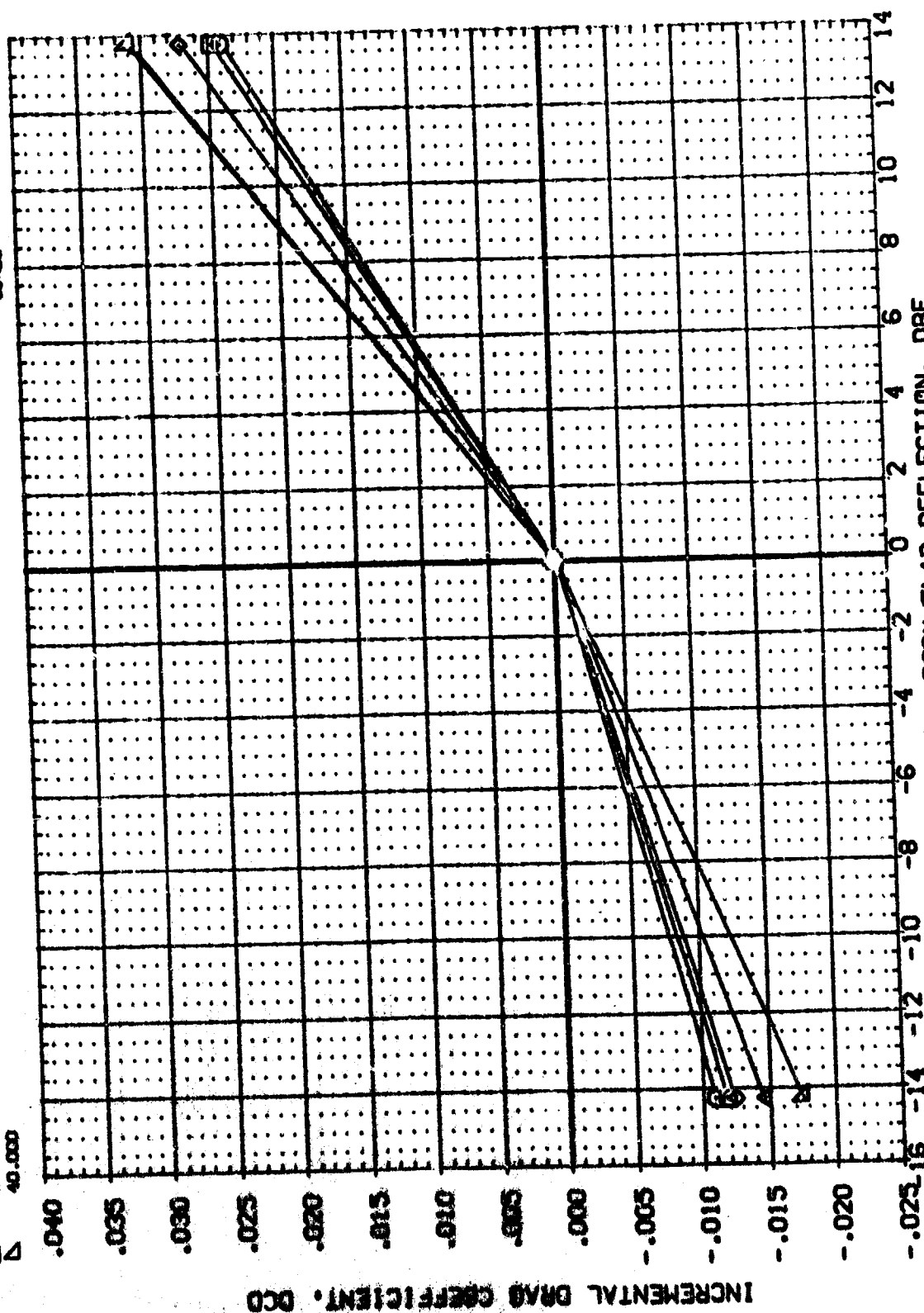


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE
PAGE 1376

MSFC 574{0A48} ORB 139 W/ALT NOSE

REFERENCE INFORMATION

2830	0000	50. FT.
474	8000	IN.
938	7000	IN.
808	7000	IN.
0000	0000	IN.
0000	0000	IN.
0000	0000	IN.

DATA SOURCE
DBF
-14.250
-13.750

PARAMETRIC VALUES	
4.960	BETA
.000	ALPHA
999.990	

ALPHA	WCH	ELEVTR	SPOSX
20.000			
22.000			
24.000			

LOOK

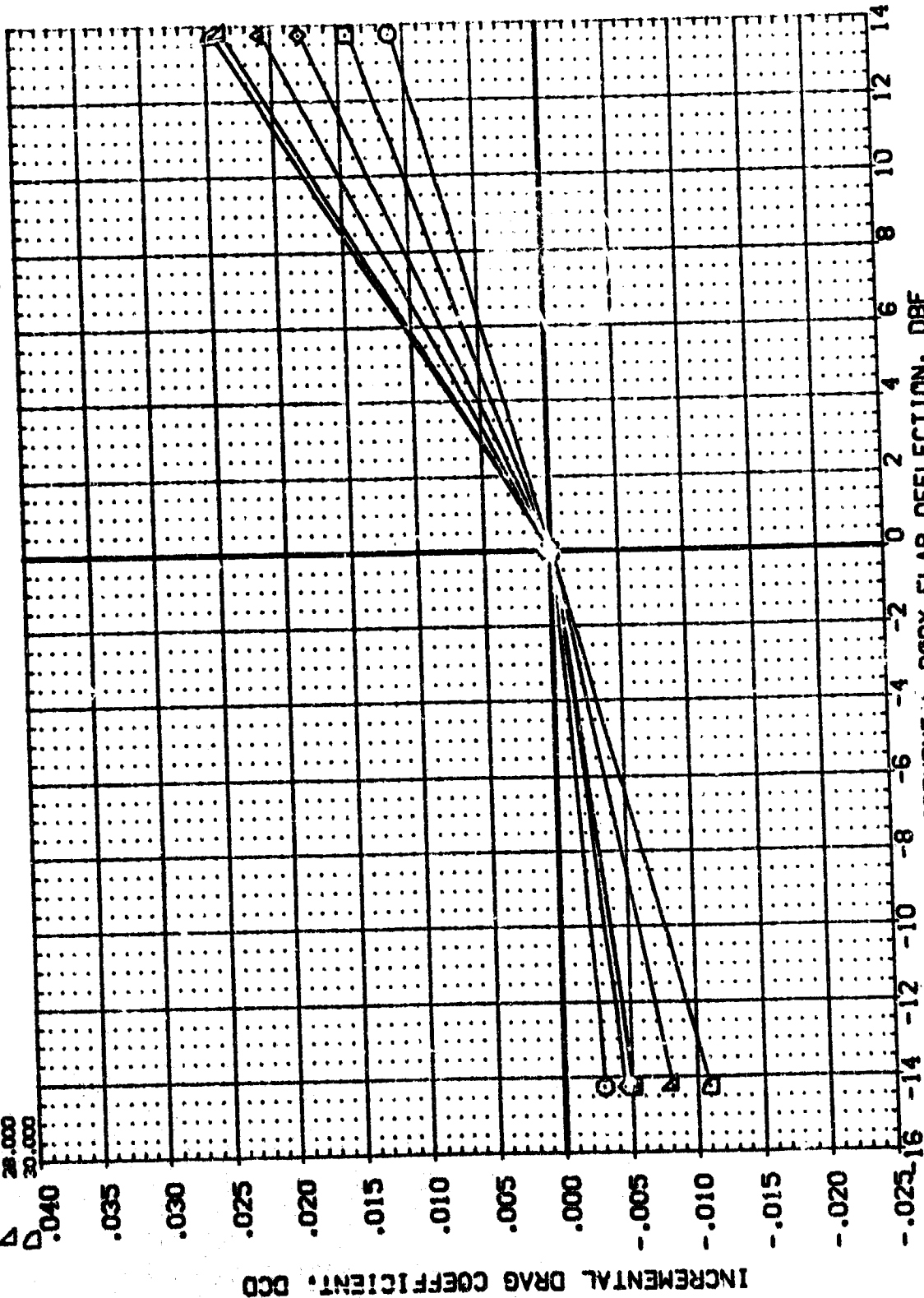


FIG. 37

MMSEC 57A (GA48) QRB 139 W/ALT NOSE

MMSEC 574 (TA48) DRB 139 W/ALT NOSE

SYMBOL 

ALPHA
32.000
34.000
36.000
38.000
40.000

**MACH
ELEVTR
SPDRX**

4.950
.000
49.950

VALUES
ETA
MILRON

88.

357
76
74

85

1367
067

88

2690.0
474.8
935.7
939.0

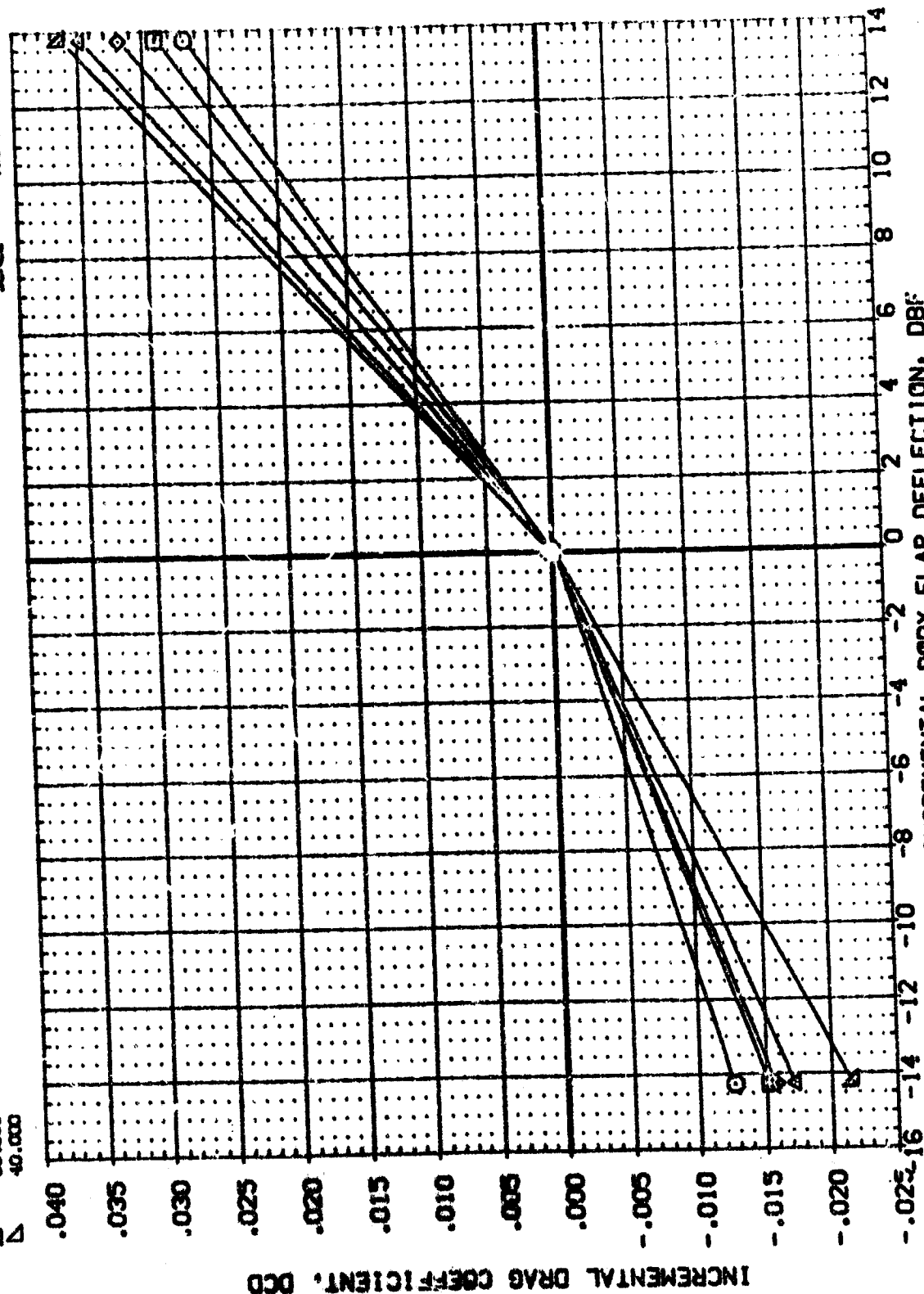
[illegible]

FIG. 37



C

MSFC 574(0A48) ORB 139 W/ALT NOSE

(L37075)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	WCH	DATASET	DBF	REF	SG.FT.
.000	.800	.000	.000	2690.0000	IN
2.000	ELEVIR	L37075	L37086	474.5000	IN
4.000	SPDRK	L37075	L37086	536.7000	IN
6.000		L37075	L37086	838.7000	IN
10.000				1000.0000	IN
				2000.0000	IN
				4000.0000	IN
				6000.0000	IN
				8000.0000	IN
				10000.0000	IN

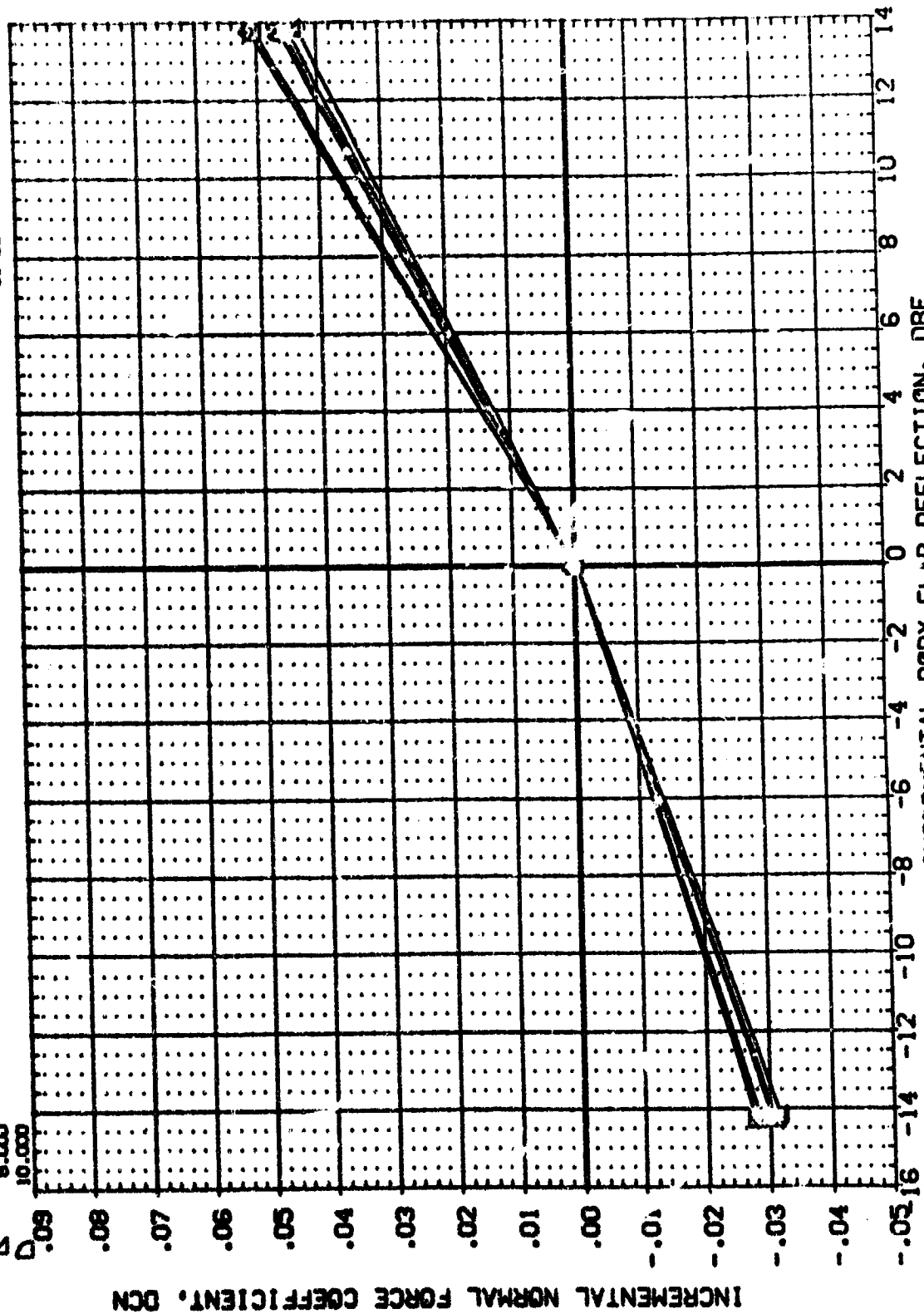


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE

WSEC 574 (MA48) QRB 139 W/ALT NOSE

REFERENCE INFORMATION		SO. FT.
SREF	2690.0000	IN.
LREF	474.8000	IN.
SREF	936.7000	IN.
XPRP	838.7000	IN.
YPRP	.0000	IN.
ZPRP	.0000	IN.
SCALE	.0040	

DATA SOURCE	DATASET	DBF
DBF	LS7066	.000
-14,250		
13,750		

PARAMETRIC VALUES	DATASET
.600 BETA	.000 L87075
.000 AIRLON	.000 L67073
999.990	

SYMBOL	ALPHA	NAME
○	12.000	NACH
□	14.000	ELEVTR
◇	16.000	SPDRBK
△	18.000	

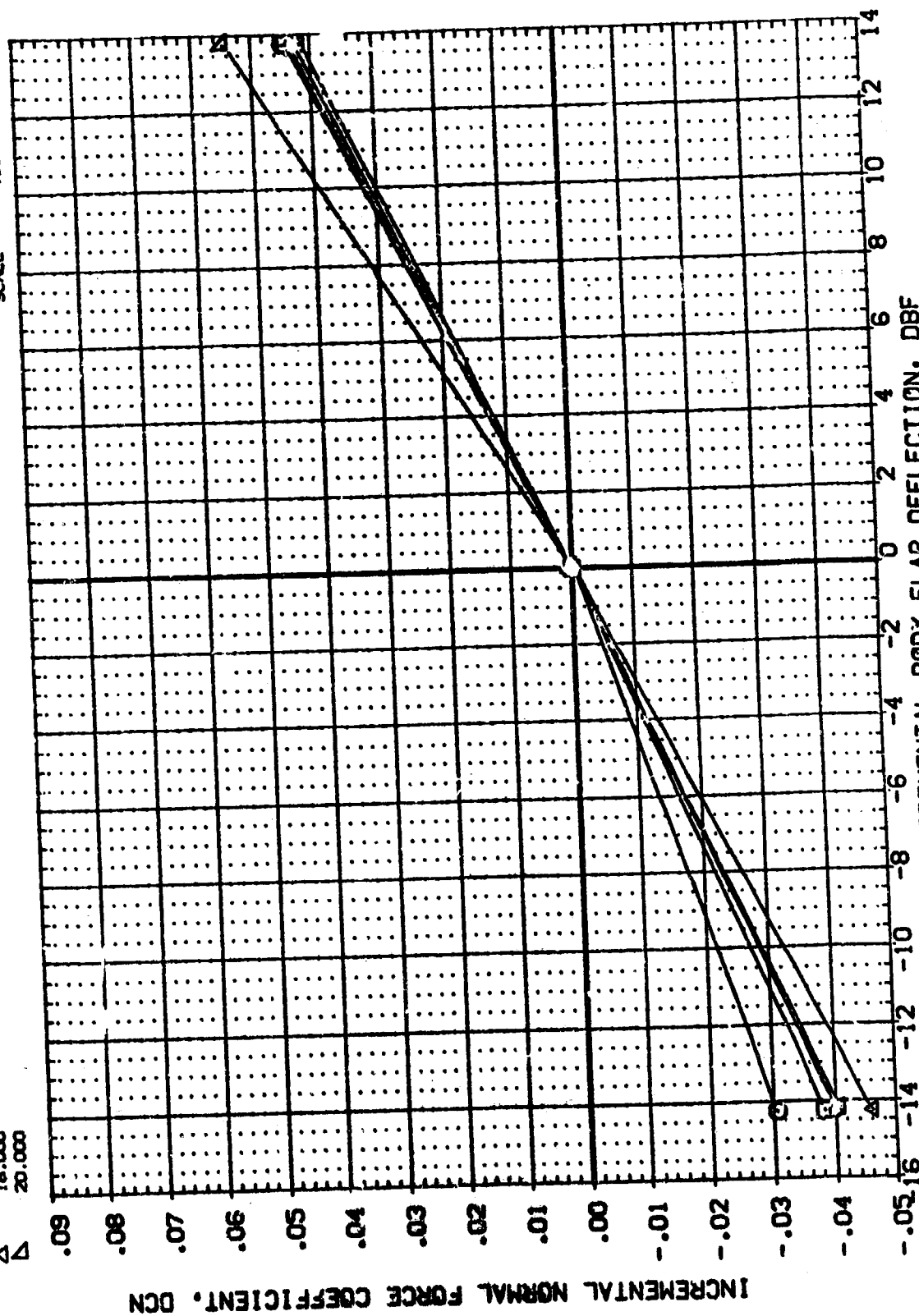


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE
INCREMENTAL BODY FLAP DEFLECTION, DB. PAGE 1380

MSFC 574(COA48) ORB 139 W/ALT NOSE

REFERENCE INFORMATION	SG.FT.
2690 0000	IN.
474 8000	IN.
926 7000	IN.
838 7000	IN.
0000	IN.
0000	IN.
0040	IN.

SCALE
ZINZ
YINZ
XINZ
BRZF
LRFZ
SRZF

03

DATA SET
L87066

FACE

DATA SOURCE
XRF
-14.250
13.750

1345
1073

000	DATE
000	197
000	197

•

**BETA
AIRON**

PARAMETRIC
900
000

PAF

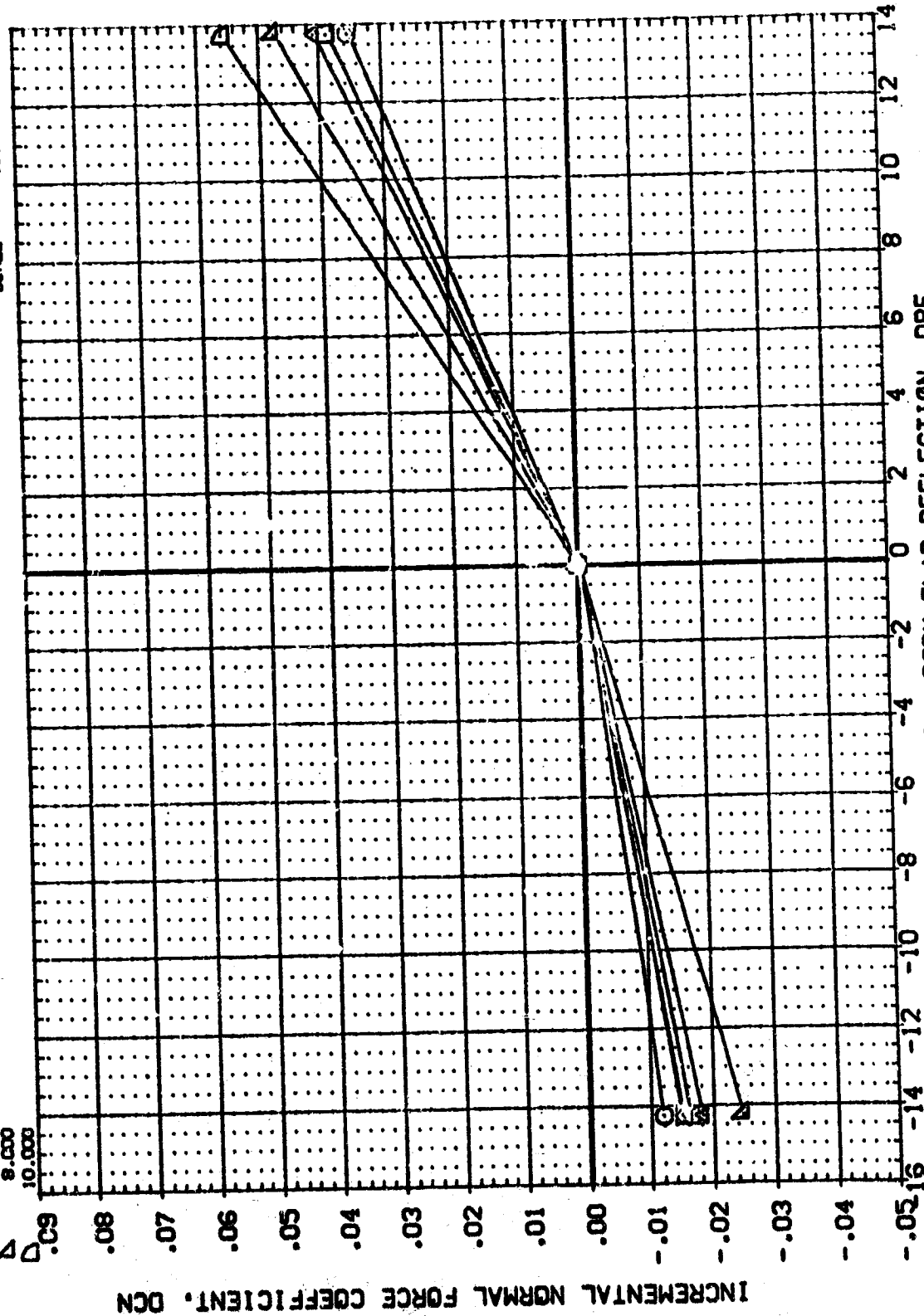
**HACH
ELEVENTH**

LPMA
.000
2.000

2000

5

2



0216 -14 -12 -10 -8 -6 -4 -2 0
INCREMENTAL BODY FLAP DEFLECTION, DBF

FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE

PAGE 1381

(L87075)

MSFC 574(0A48) ORB 139 W/ALT NOSE

REFERENCE INFORMATION
SREF 2690.0000 SQ.FT.
LREF 474.6000 IN.
HREF 936.7000 IN.
XREF 838.7000 IN.
YREF .0000 IN.
ZREF .0000 IN.
SCALE .0040

DATA SOURCE
DBF -14.250
L87066 13.750

DATASET
L87075
L87073

PARAMETRIC VALUES
BETA .500
AILRON .000
999.990

ALPHA
12.000
14.000
16.000
18.000
20.000

MACH
ELEVTR
SPOBRK

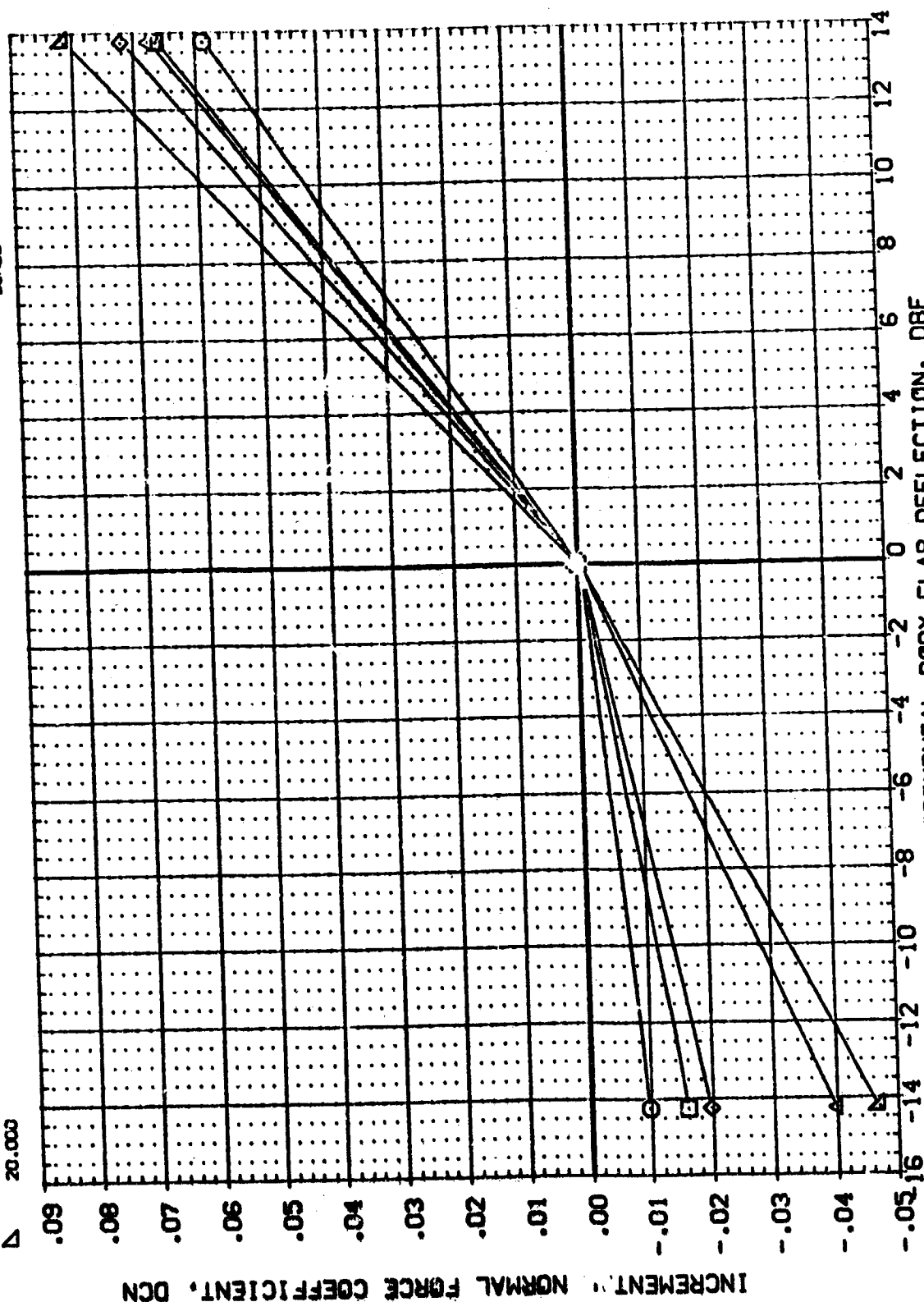


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE



MSFC 574(0A48) ORB 139 W/ALT NOSE

(L87075)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	MACH	DBF	DBF	SREF	SO.FT.
.000	1.200	.000	.000	LREF	IN.
2.000	.000	L87075	L87066	BREF	IN.
4.000	999.999	-14.250		XREF	IN.
6.000		13.750		YREF	IN.
8.000				ZREF	IN.
10.000				SCALE	.0040

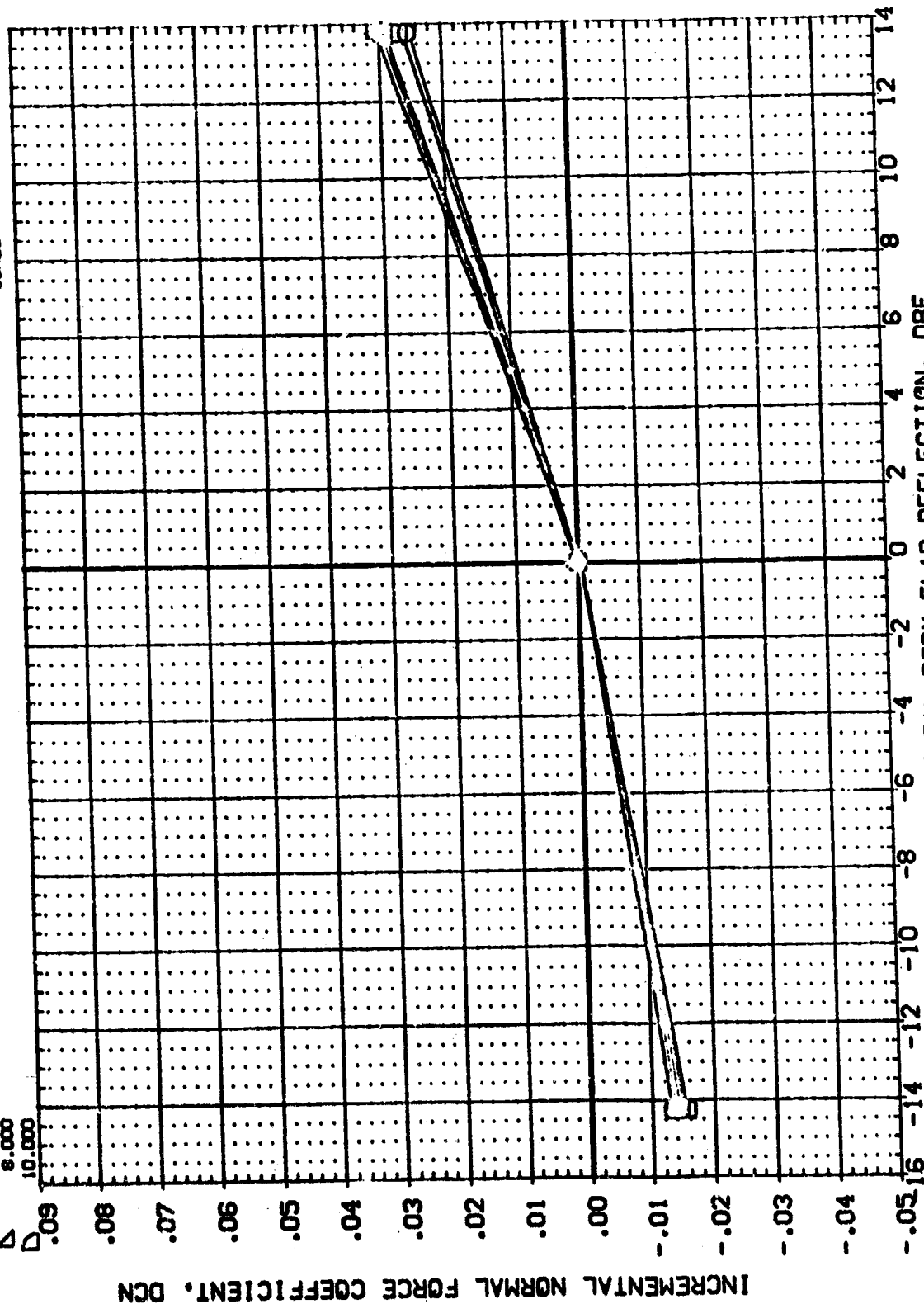


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE

(L87075)

MSFC 574(0A48) ORB 139 W/ALT NOSE

REFERENCE INFORMATION
SQ.FT. 2690.0000
IN. 474.8000
IN. 936.7000
IN. 832.7000
IN. 0.0000
IN. 0.0000
IN. 0.0000
SCALE .0040

DATA SOURCE
DBF -14.250
L87066
L87066

DATASET
L87075
L87073

PARAMETRIC VALUES
BETA
ATLRN

ALPHA
12.000
14.000
16.000
18.000
20.000

SYMBOL
O
□
◇
△

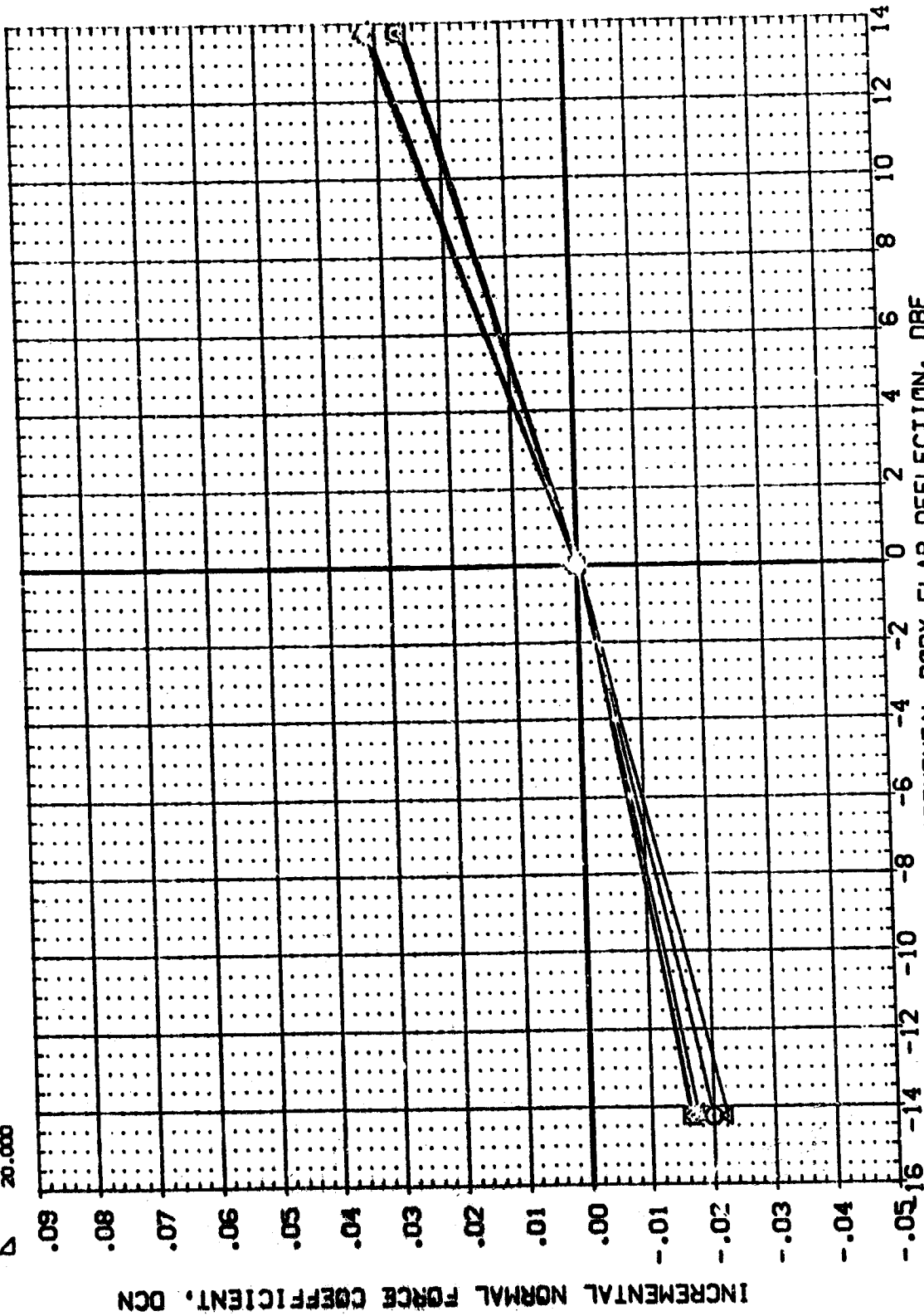


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE
PAGE 1384



MSFC 574(0A48) ORB 139 W/ALT NOSE (L87075)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	WACH	.000	DATASET	SREF	2690.0000
	ELEVTR	.000	.000	LREF	474.8000
	SPDRK	999.990	L87075	XREF	936.7000
			13.750	YREF	838.7000
				ZREF	.0000
				SCALE	.0040

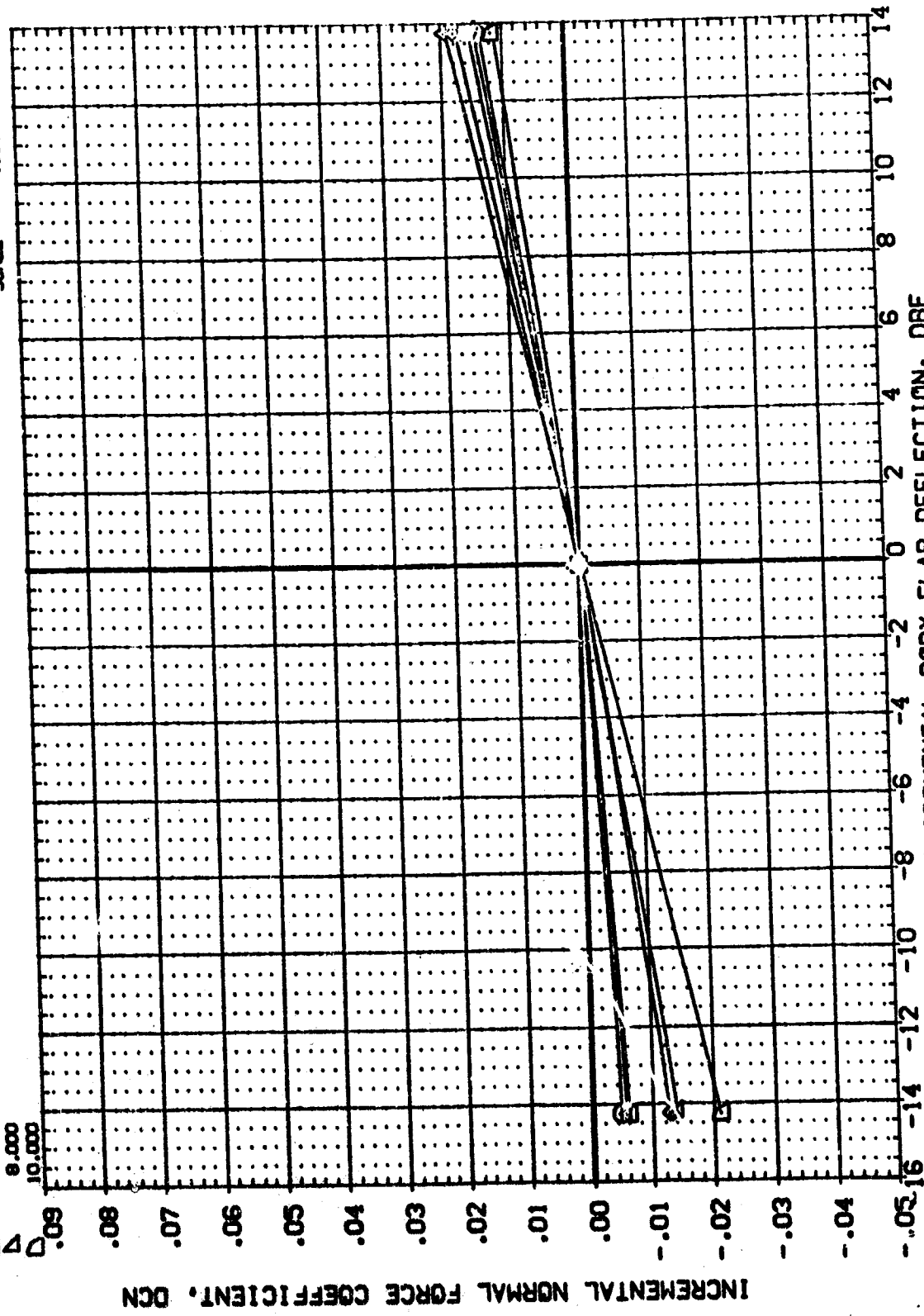
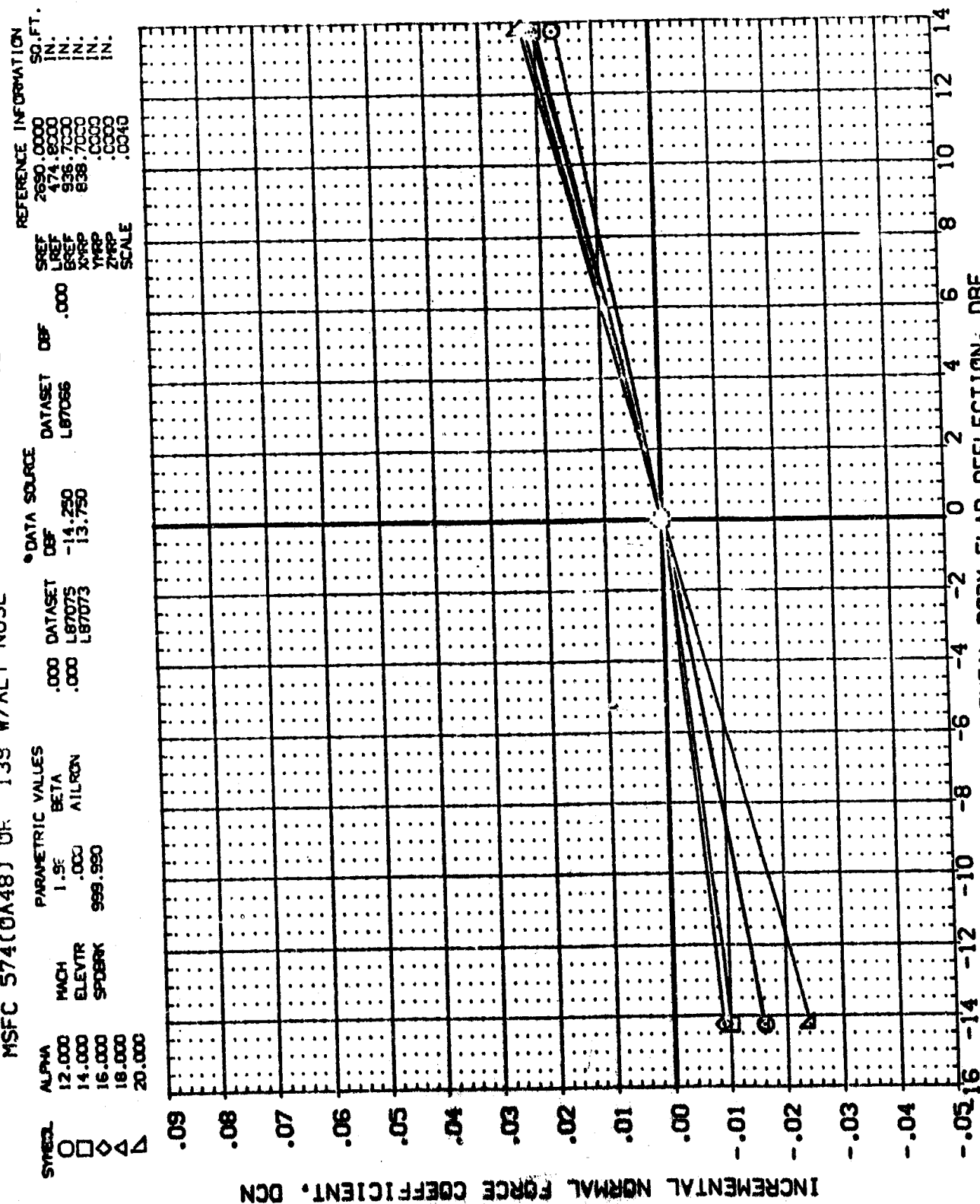


FIG 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE



0516 -16 -14 -12 -10 -8 -6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80 82 84 86 88 90 92 94 96 98 100

INCREMENTAL BODY FLAP DEFLECTION, DBF

FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE PAGE 1386



MSFC 574(0A48) ORB 139 W/ALT NOSE (L87075)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	0.000	DATASET	DBF	SREF	SO.FT.
MACH	2.550	BETA	.000	LREF	IN.
ELEVTR	.000	AILRON	L87065	SREF	IN.
SPDRK	999.990			XREF	IN.
				YREF	IN.
				ZREF	IN.
				SCALE	.0040

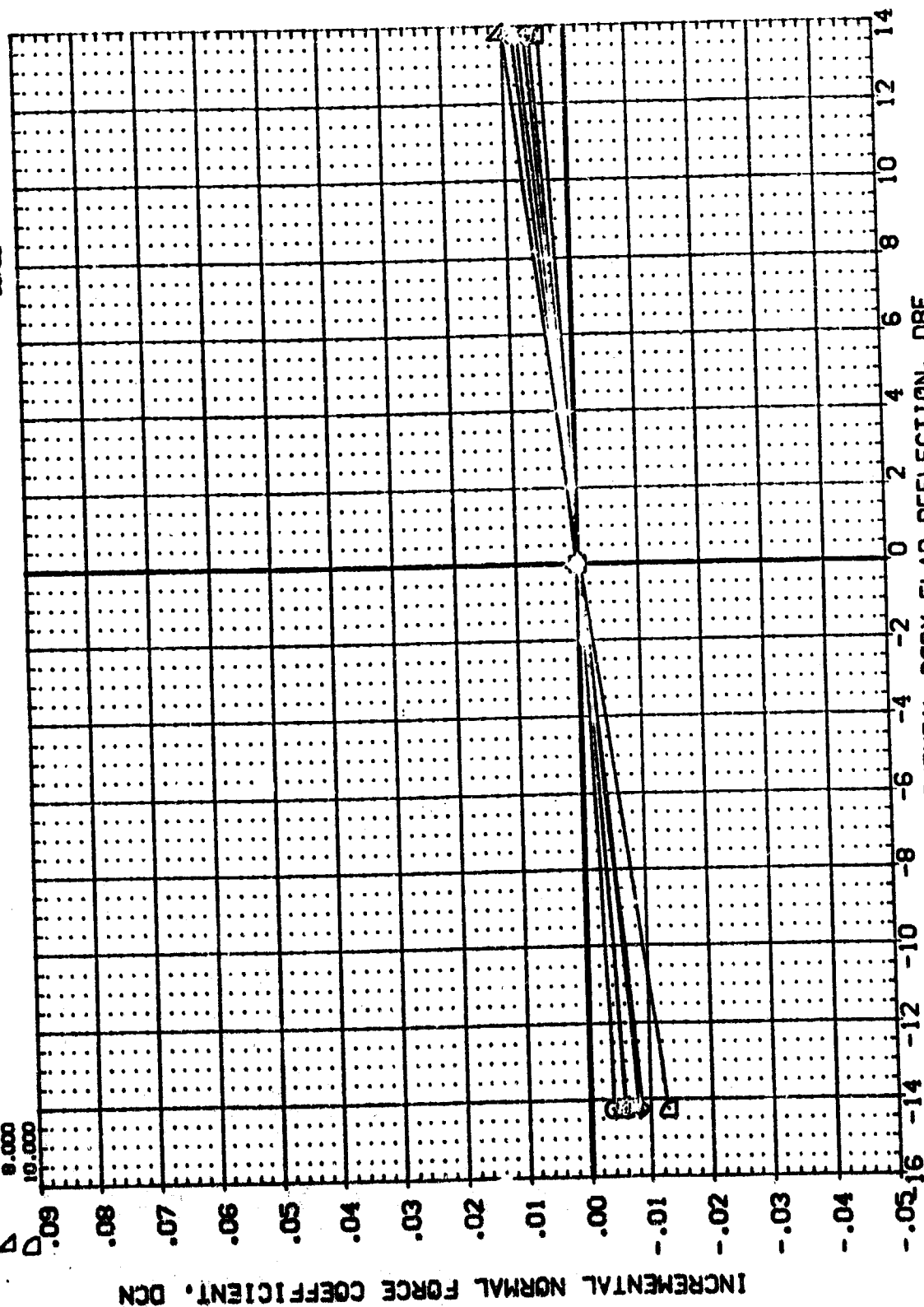


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE
PAGE 1387

100

ALPHA
12.000
14.000
16.000
18.000
20.000

Symbol     

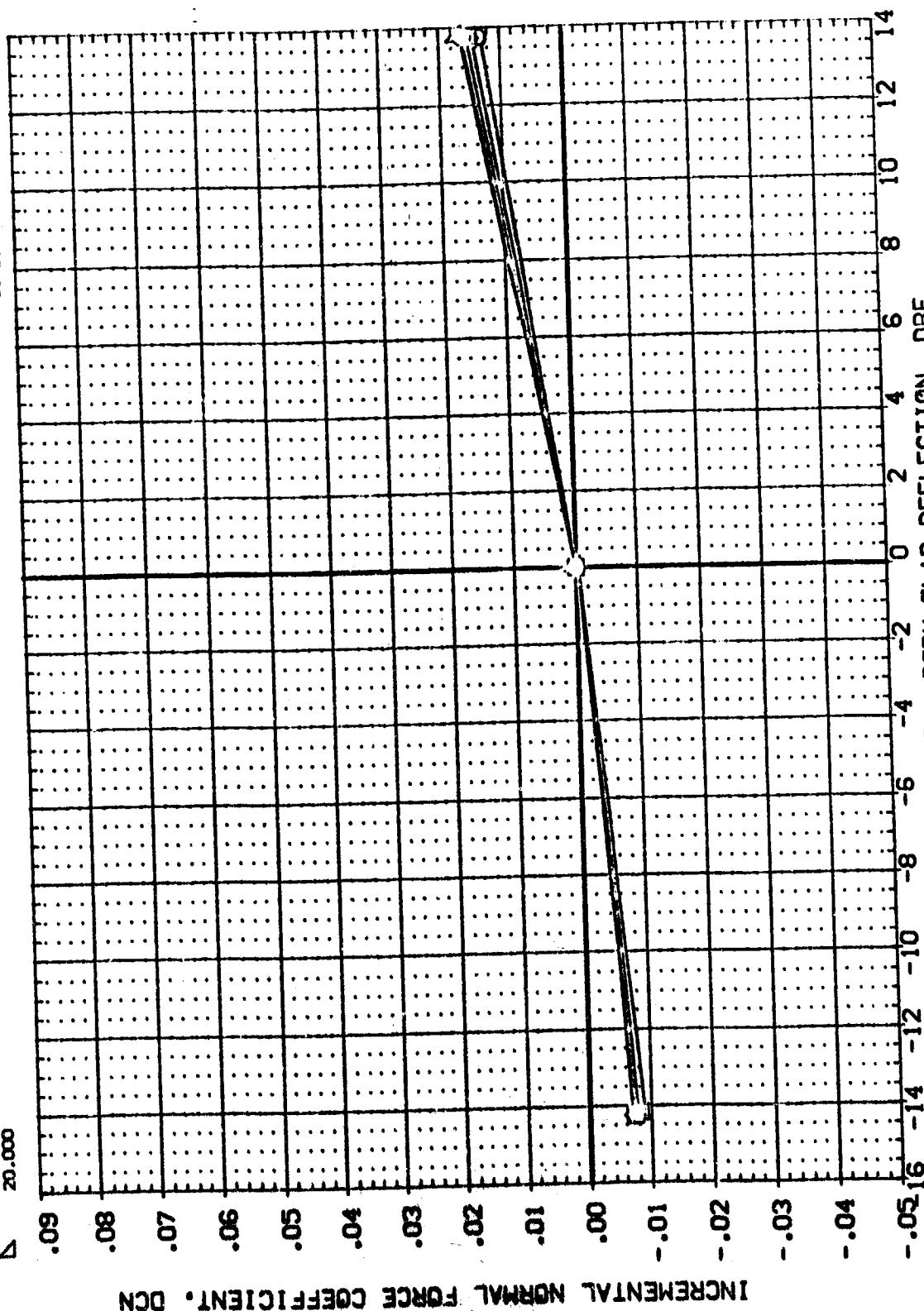


FIG. 37
INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE
INCREMENTAL BODY FLAP DEFLECTION, DEG. PAGE 1288

MSFC 574 (QA48) ORB 139 W/ALT NOSE

REFERENCE INFORMATION		SO. FT.
2690	0000	IN.
474	8200	IN.
936	7000	IN.
838	7000	IN.
	0000	IN.
	0000	IN.
	0040	IN.

DATA SOURCE	DATASET	DBF	DBF
DBF	L87066		.000
-14.250			
13.750			

LI NOSE	.000	DATA5
	.000	L87075
		L87073

148) ORB 139

PARAMETRIC VALUES

4.960 BETA

.000 AILRON

999.990

5740
MACH
ELEVTR
SPTRBK

MSI

ALPHA

12.000

14.000

16.000

18.000

20.000

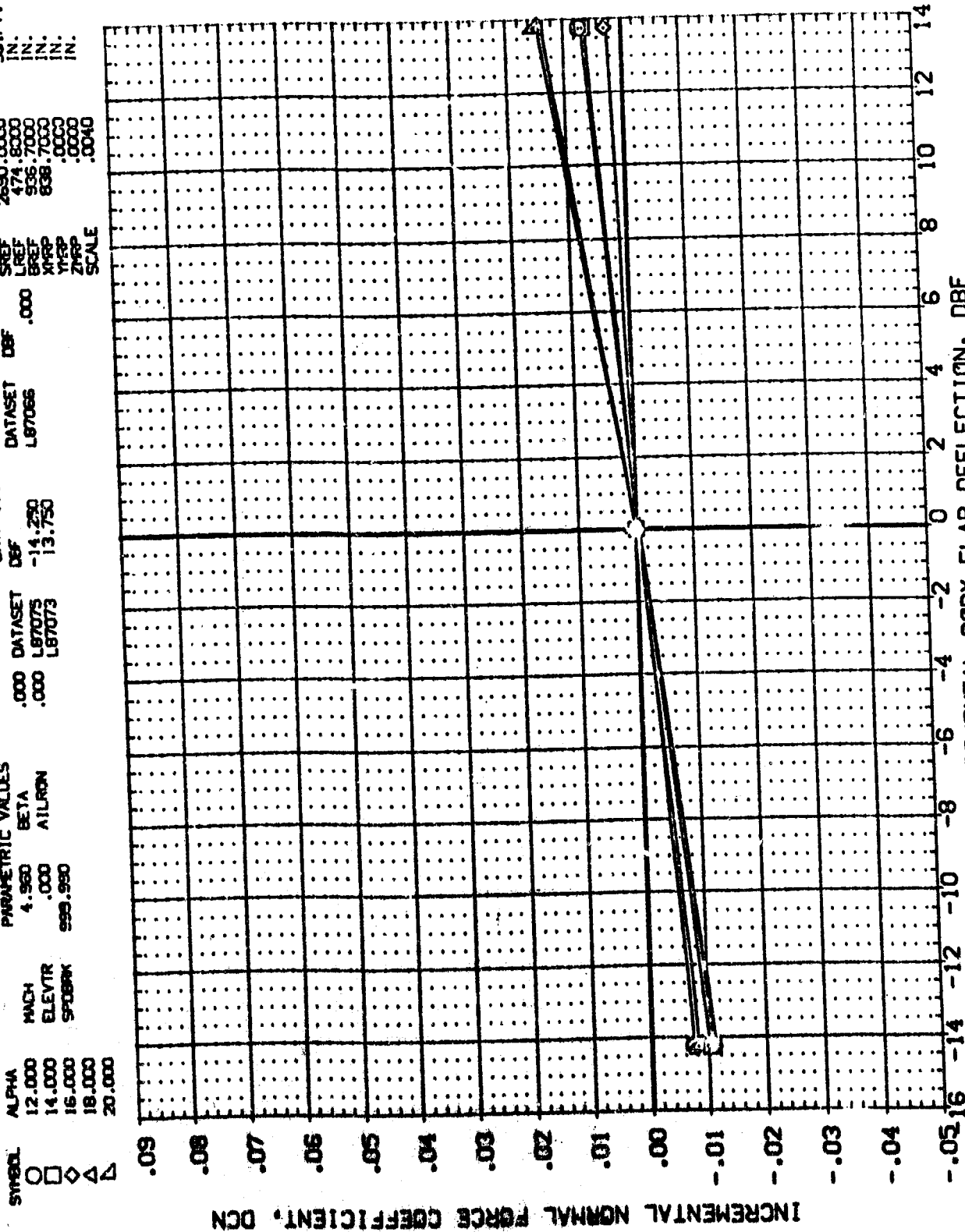


FIG. 37



MSFC 574(0A48) ORB 139 W/ALT NOSE (L87076)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
WCH	2.990	BETA	.000	SREF	2690.0000
ELEVTR	.000	ALTRON	.000	LREF	474.8000
SPDRK	999.990			BREF	936.7000
				XREF	838.7000
				YREF	.0000
				ZREF	.0000
				SCALE	.0040

SYMBOL: 20.000, 22.000, 24.000, 26.000, 28.000, 30.000

DATA: DBF -14.250, DBF -13.750

SO. FT. IN. IN. IN. IN.

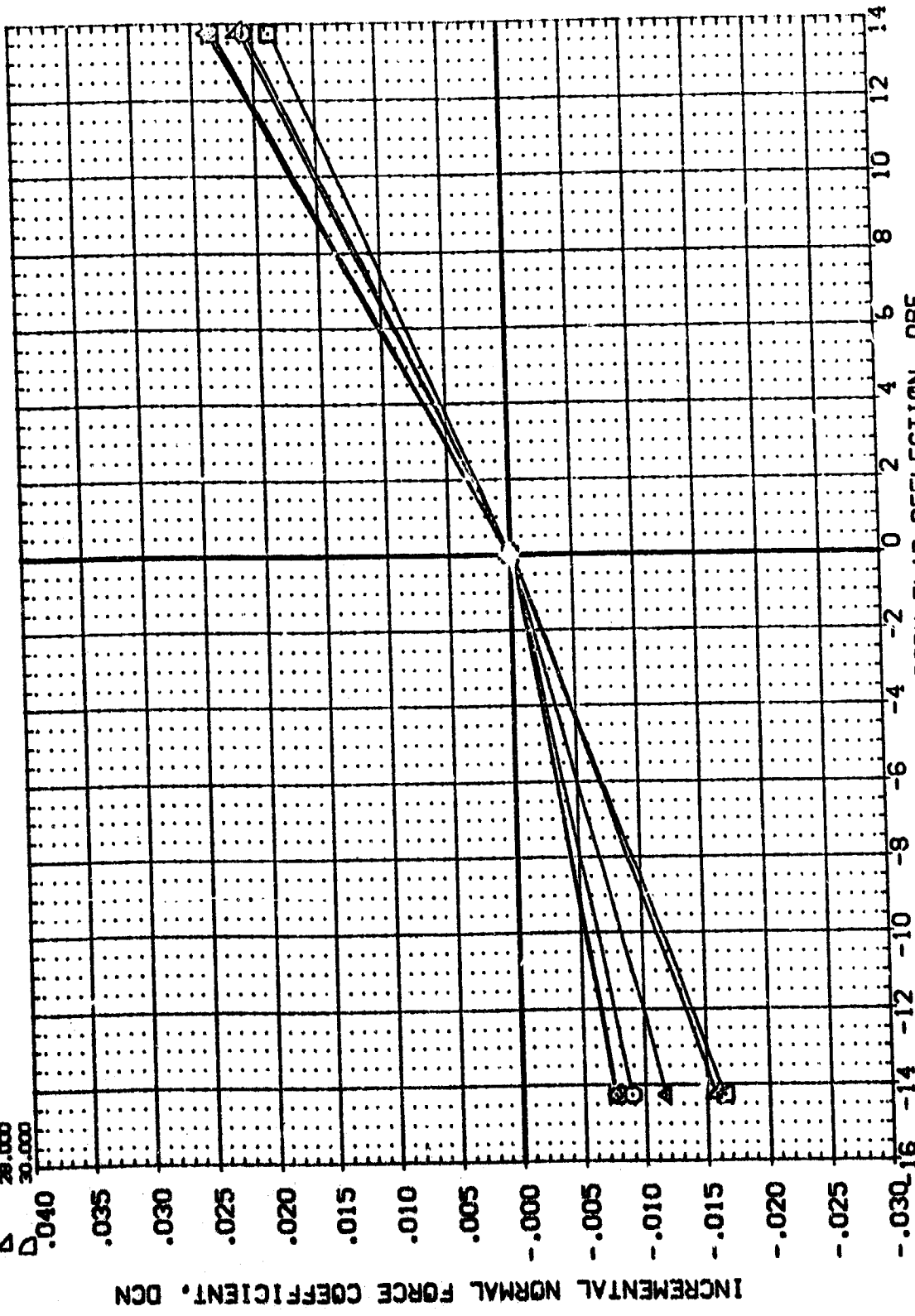


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE

(L87076)

MSFC 574(0A48) ORB 139 W/ALT NOSE

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	BETA	DBF	DBF	SREF	SD, FT.
32.000	2.990	.000	.000	474.8000	IN.
34.000	.000	.000	.000	935.7000	IN.
36.000	999.990	.000	.000	838.7000	IN.
38.000				YREF	IN.
40.000				ZREF	IN.
				SCALE	.0010

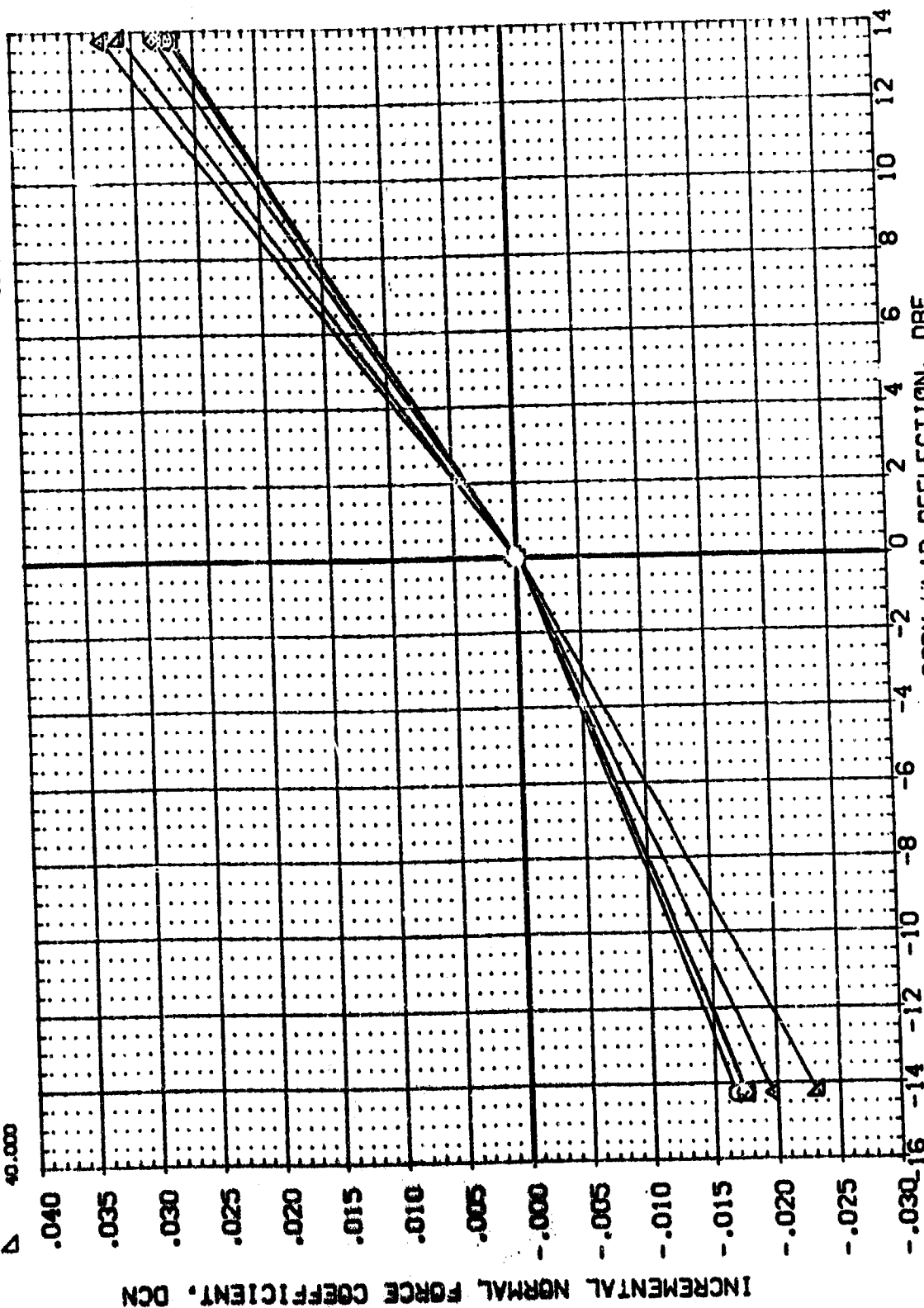


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE



MSFC 574(0A48) ORB 139 W/ALT NOSE (L87076)

SYMBOL	ALPHA	HIGH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	20.000		BETA	DBF	SRBF
□	22.000		AIRLON	DBF	LREF
◇	24.000			DBF	BRBF
△	26.000			DBF	XREF
▽	28.000			DBF	YREF
▽	30.000			DBF	ZREF
					SCALE
					SO. FT.
					IN.
					IN.
					IN.
					IN.
					IN.

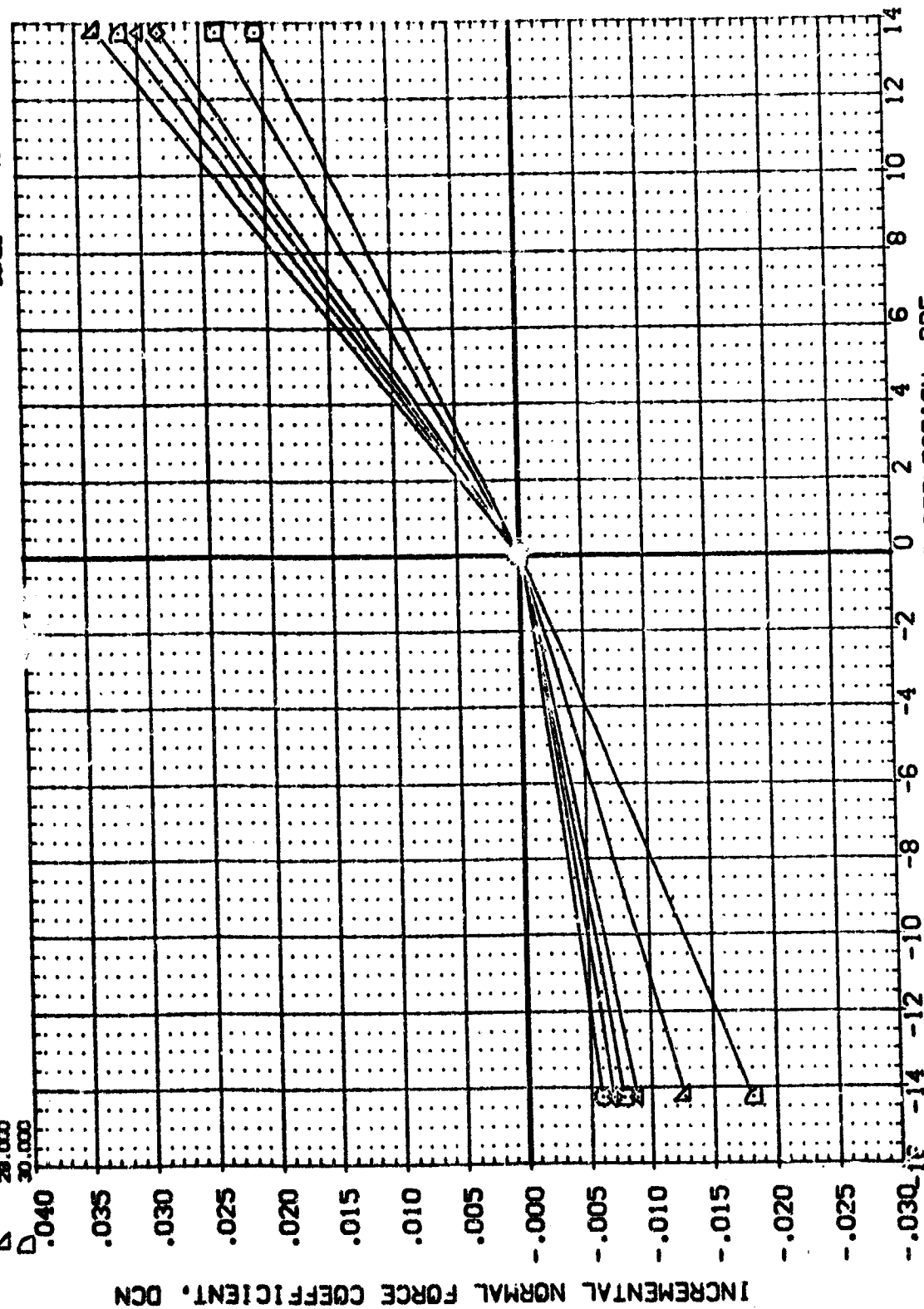


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE

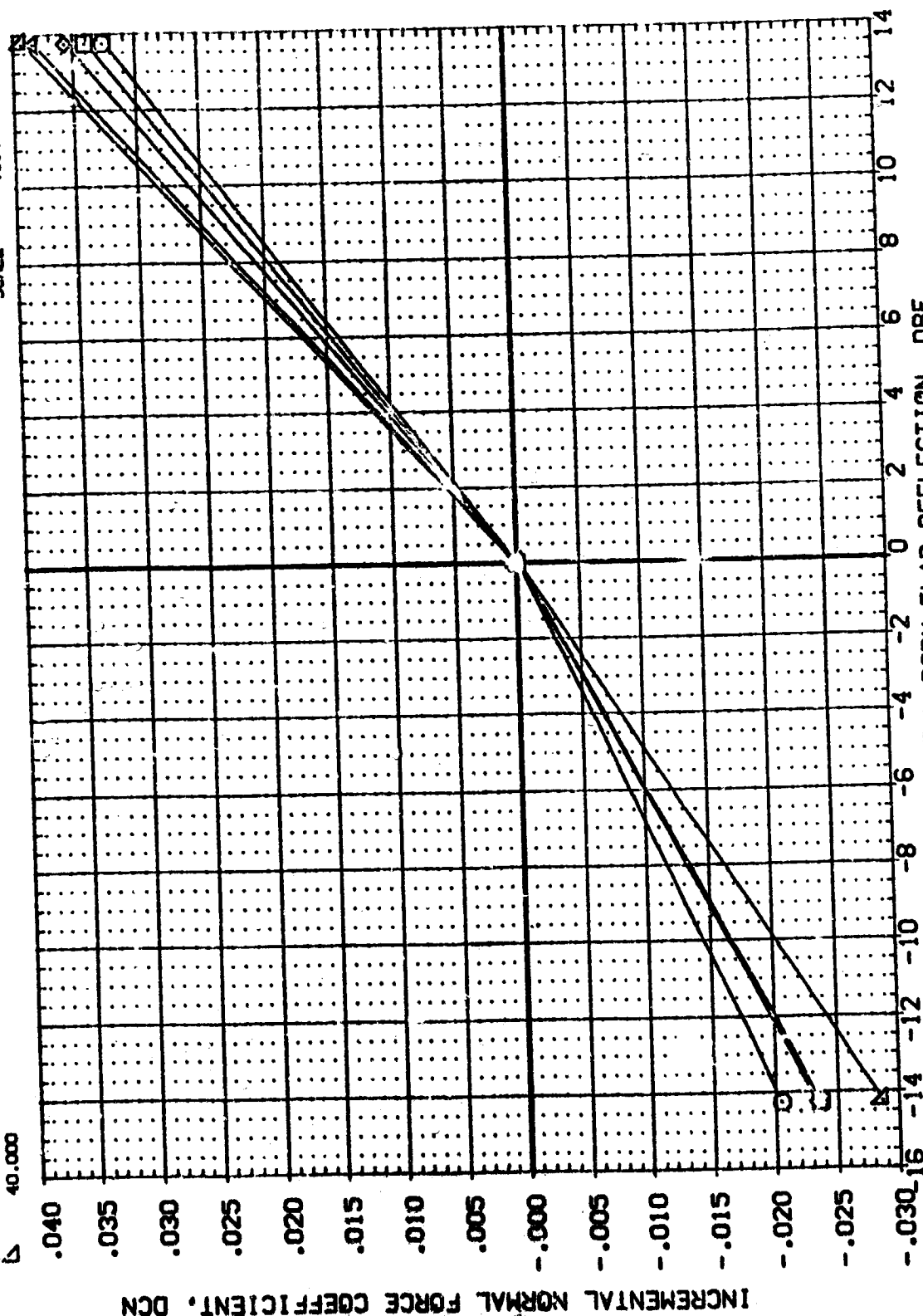
[illegible]

FIG. 37

MSFC 574(0A48) ORB 139 W/ALT NCSE

REFERENCE INFORMATION		SO. FT.
SREF	2690.0000	IN.
LEFT	474.8000	IN.
SREF	926.7000	IN.
XPFR	838.7000	IN.
YFRP	.0000	IN.
ZFRP	.0000	IN.
SCALE	.0040	

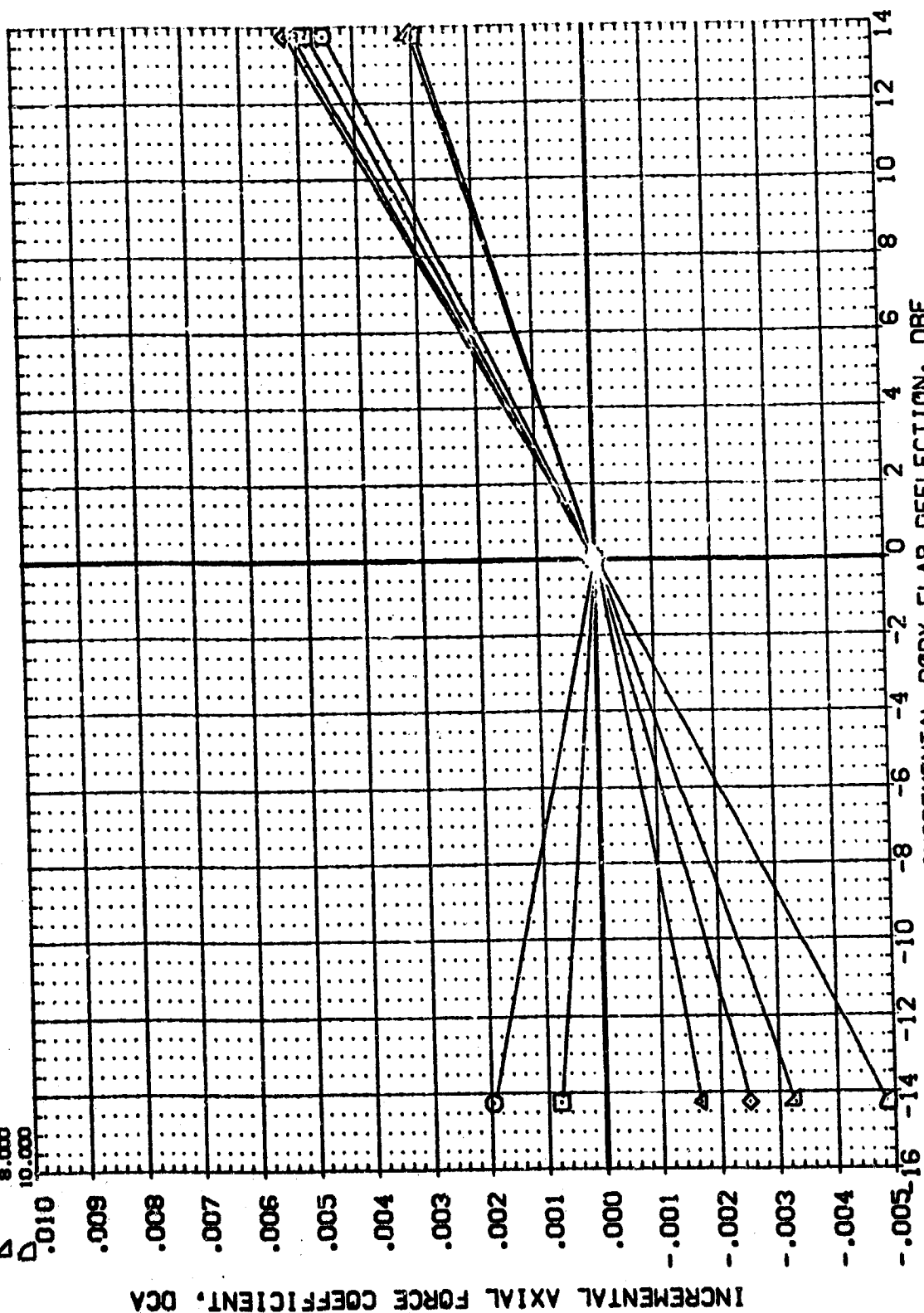
DATA SOURCE
JEF
-14.250
13.750

Dataset	Size
87075	1,000
87073	1,000

PARAMETRIC VALUES
1.960 BETA
.000 AIRLON
999.990

**HACH
ELETR
SPARK**

SYMBOL	ALPHA
○	.000
□	2.000
◇	4.000
△	6.000
▽	8.000
◊	10.000



003-16 -14 -12 -10 -8 -6 -4 -2 0
INCREMENTAL BODY FLAP DEFLECTION, DBF

FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE

PAGE 1395

(*87075)

MSFC 574(0A48) ORB 139 W/ALT NOSE

SYMBOL ALPHA
 ○ 12.000
 □ 14.000
 ◇ 16.000
 △ 18.000
 ▽ 20.000

PARAMETRIC VALUES
 MACH 1.960
 ELEVTR .000
 SP086K 999.990
 BETA
 AILRON

DATA SOURCE
 DBF
 -14.250
 13.750

DATASET DBF
 *87056

REFERENCE INFORMATION
 SREF 2690.0000
 LREF 474.8000
 BREF 938.7000
 YREF 838.7000
 ZREF .0000
 SCALE .0040

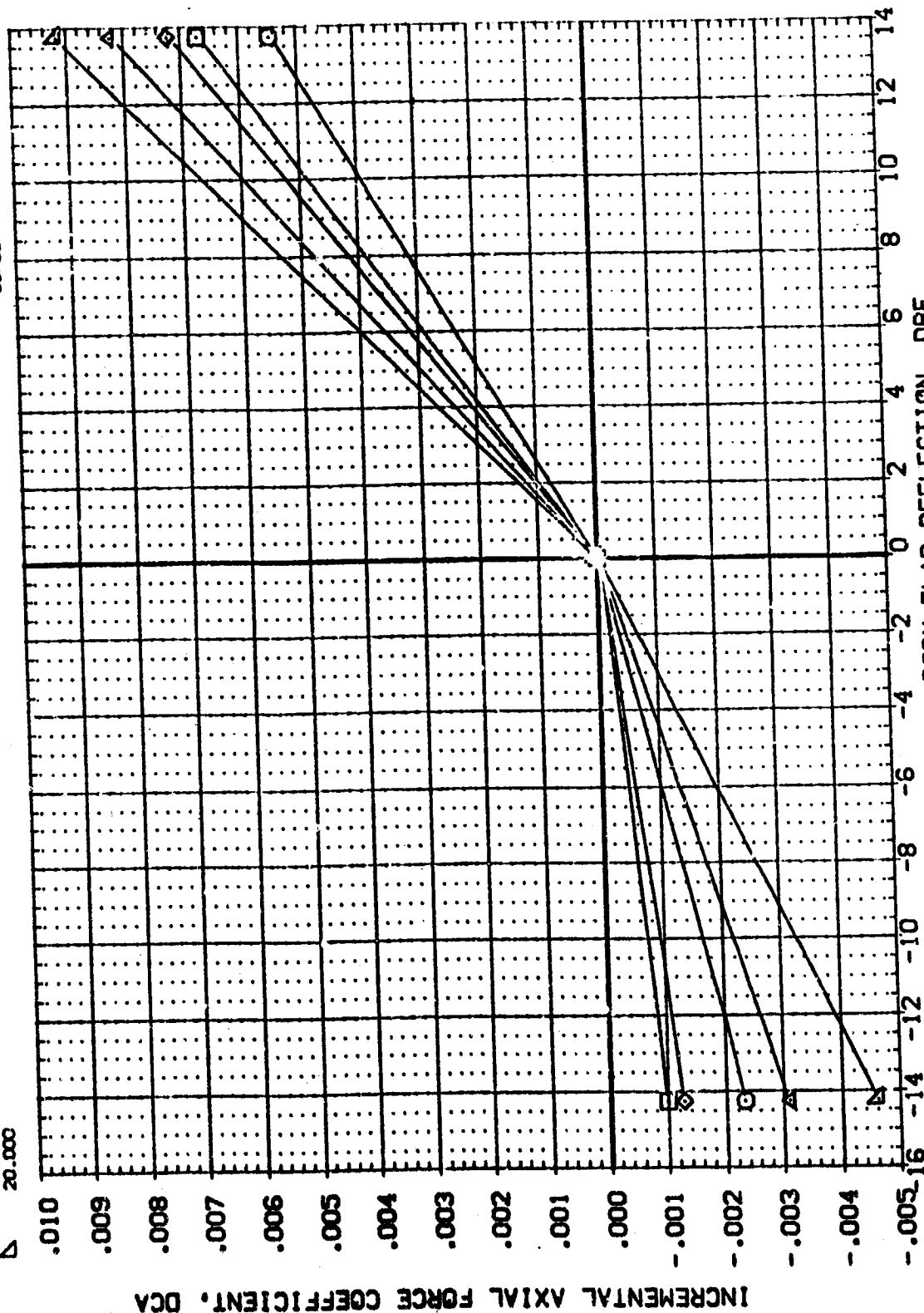


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE



(*87075)

MSFC 574(0A48) ORB 139 W/ALT NOSE

MSFC 574(0A48) URK 139 W/ALT NOSE									
PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION					
ALPHA	MACH	BETA	DATASET	DBF	DATASET	DBF	SREF	USREF	SO.FT.
.000	2.990	.000	.000	-14.250	+87066	.000	2690.0000	474.8000	IN.
2.000	ELEVTR	AIRLON	.000	-13.750	+87073		936.7000	838.7000	IN.
4.000	SPOBRK						0.0000	0.0000	IN.
6.000							0.0000	0.0040	IN.
							SCALE		

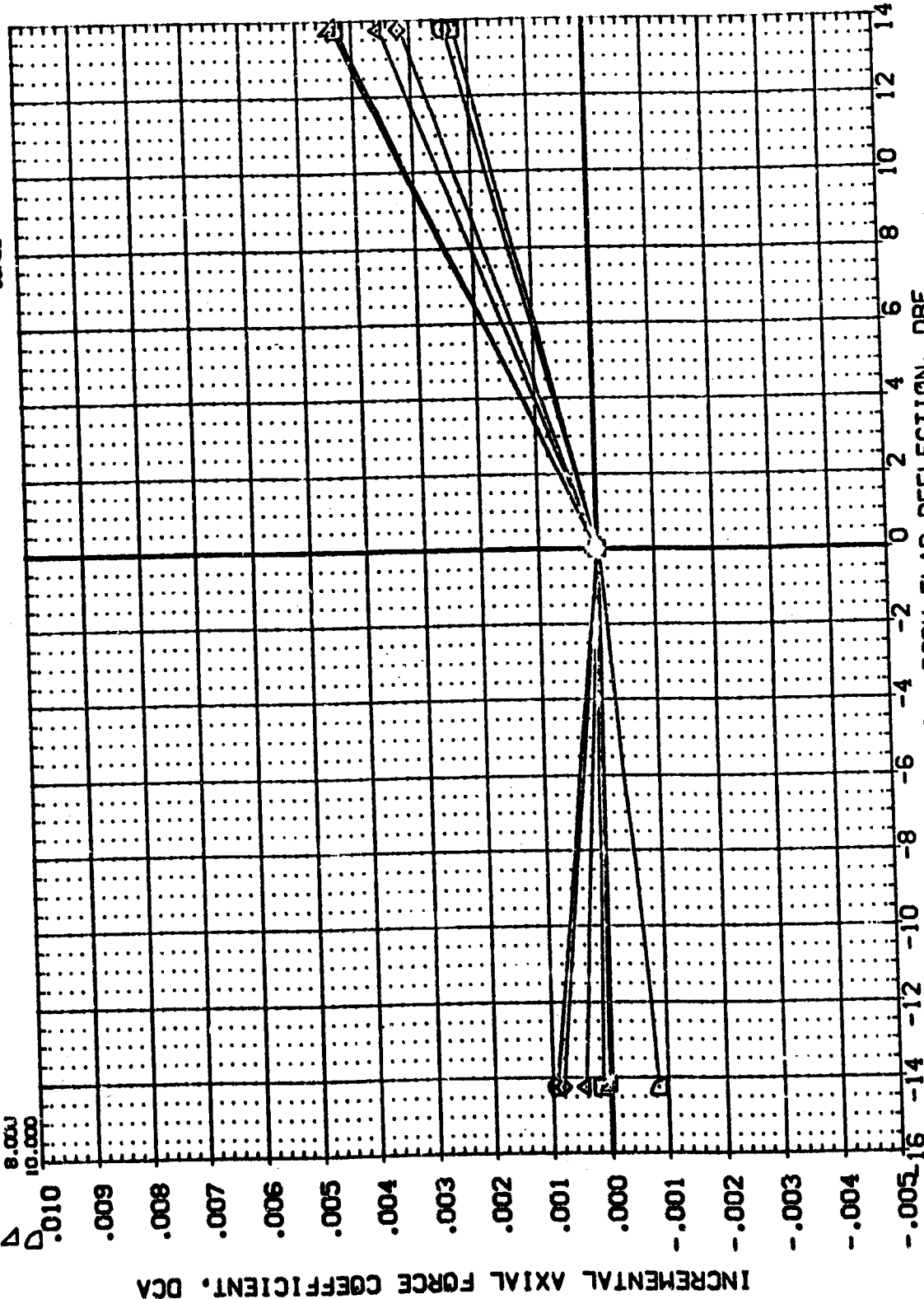


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE

(*87075)

MSFC 574(0A48) ORB 139 W/ALT NOSE

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DBF	REF	REFERENCE INFORMATION
○	12.000		2.990 BETA	DBF	.000		SREF	2690.0000
□	14.000		.000 AILRON	-14.250	+87066		LREF	474.6000
◇	16.000		999.990	13.750			BREF	925.7000
△	18.000						XREF	833.7000
▽	20.000						YREF	.0000
							ZREF	.0000
							SCALE	.0040

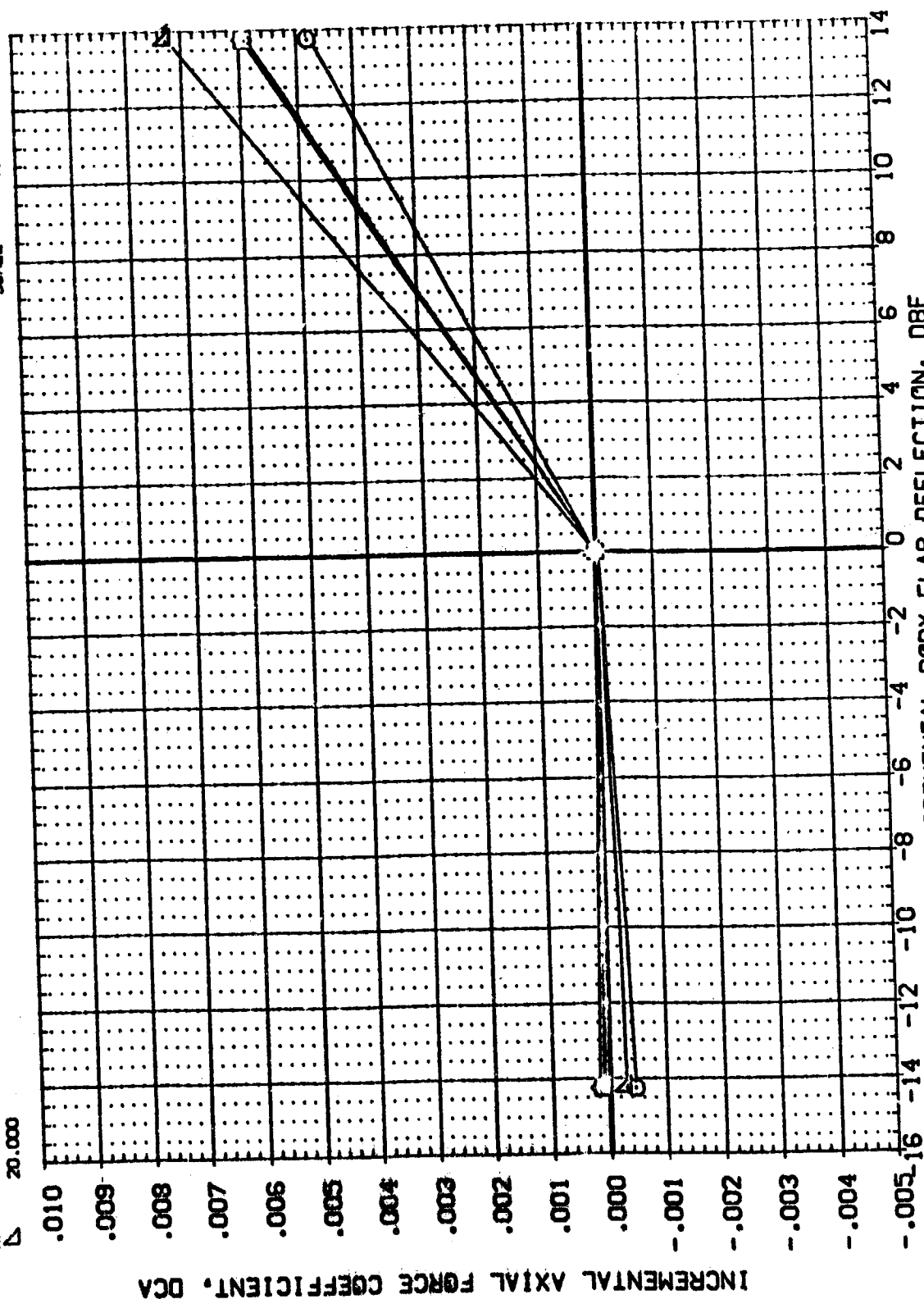


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE



[*87075]

REFERENCE INFORMATION
2690.0000 SQ.FT.

DATA SOURCE

152

148J UKB 133
PARAMETRIC VALUES

5/40

MS

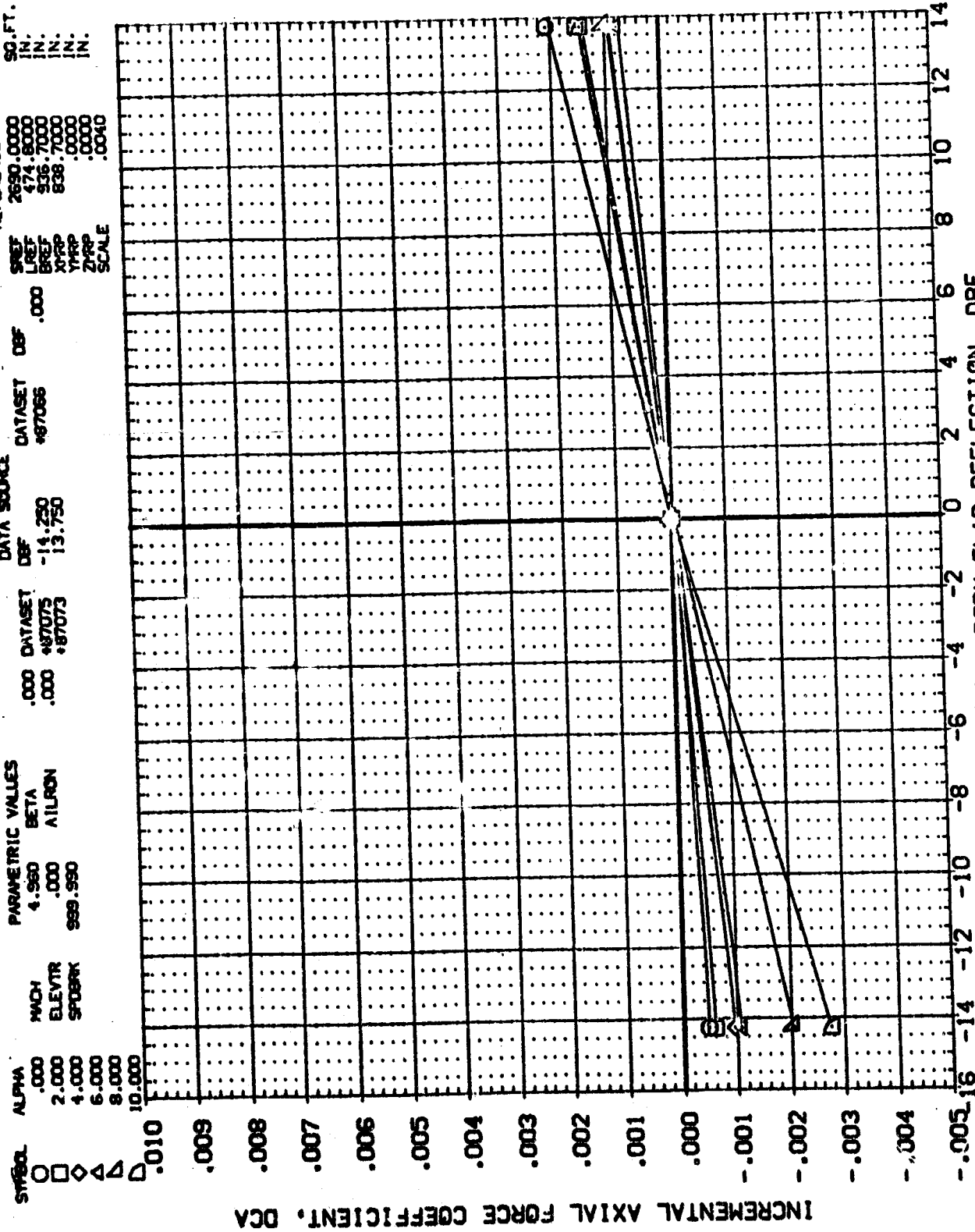


FIG. 37

(*87075)

MSFC 574(0A48) ORB 139 W/ALT NOSE

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 939.7000 IN.
 XMRP 838.7000 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE .0040

DATA SOURCE
 DBF -14.250
 DBF 13.750

PARAMETRIC VALUES
 BETA .000
 AILRON .000
 999.390

MACH
 ELEVTR
 SPDGRK

SYMBOL ALPHA
 12.000
 14.000
 16.000
 18.000
 20.000

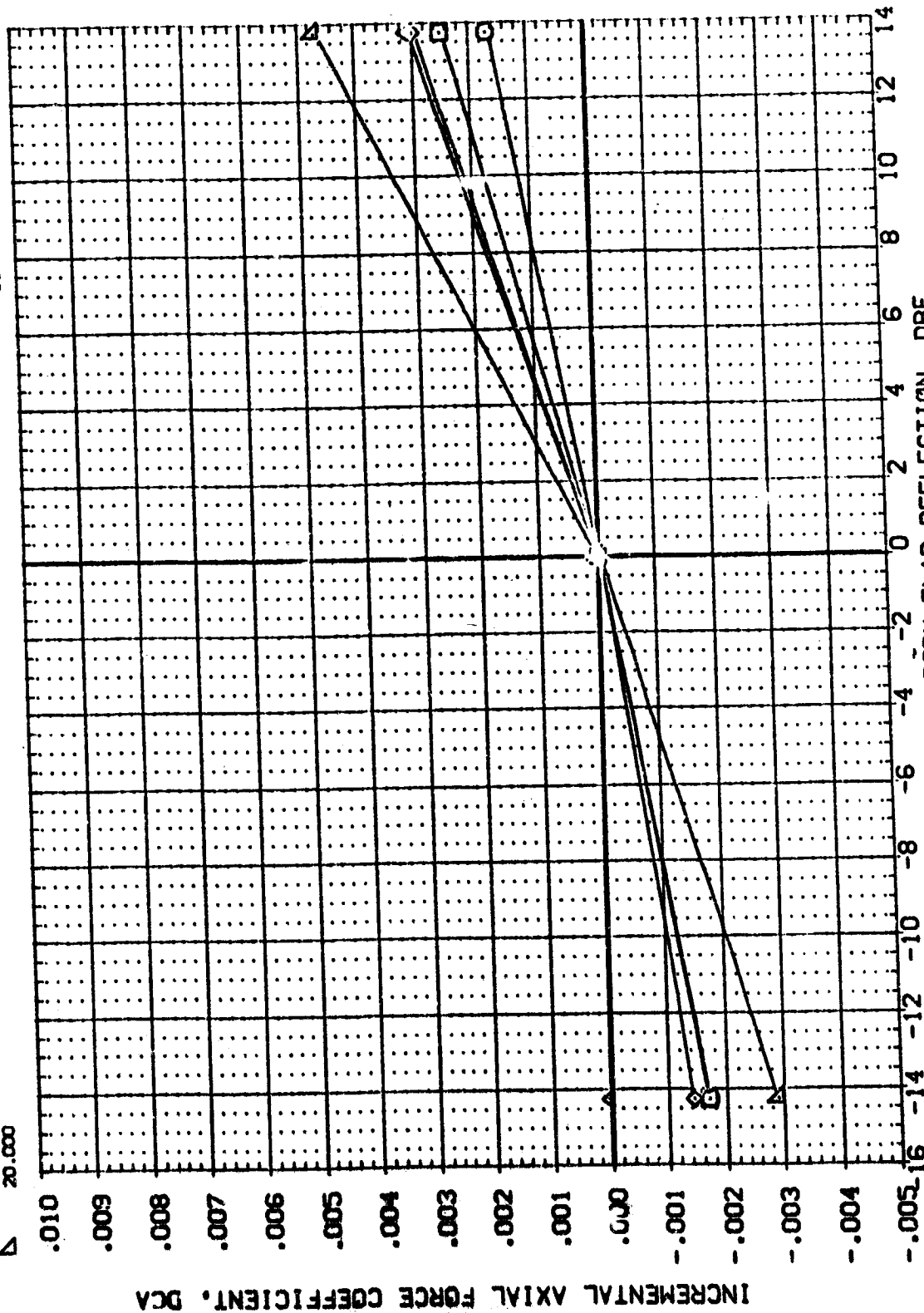


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE
 INCREMENTAL BODY FLAP DEFLECTION, DBF



MSFC 574(0A48) ORB 139 W/ALT NOSE (L87076)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DBF	DBF	REFERENCE INFORMATION
○	20.000	2.990	BETA	DBF	.000	SREF	2690.0000 SO.FT.
□	22.000	.000	AILRON	-14.250	.000	LREF	474.8000 IN.
△	24.000	999.990		13.750		BREF	936.7000 IN.
▽	26.000					XREF	838.7000 IN.
◇	28.000					YREF	.0000 IN.
○	30.000					ZREF	.0000 IN.
						SCALE	.0040

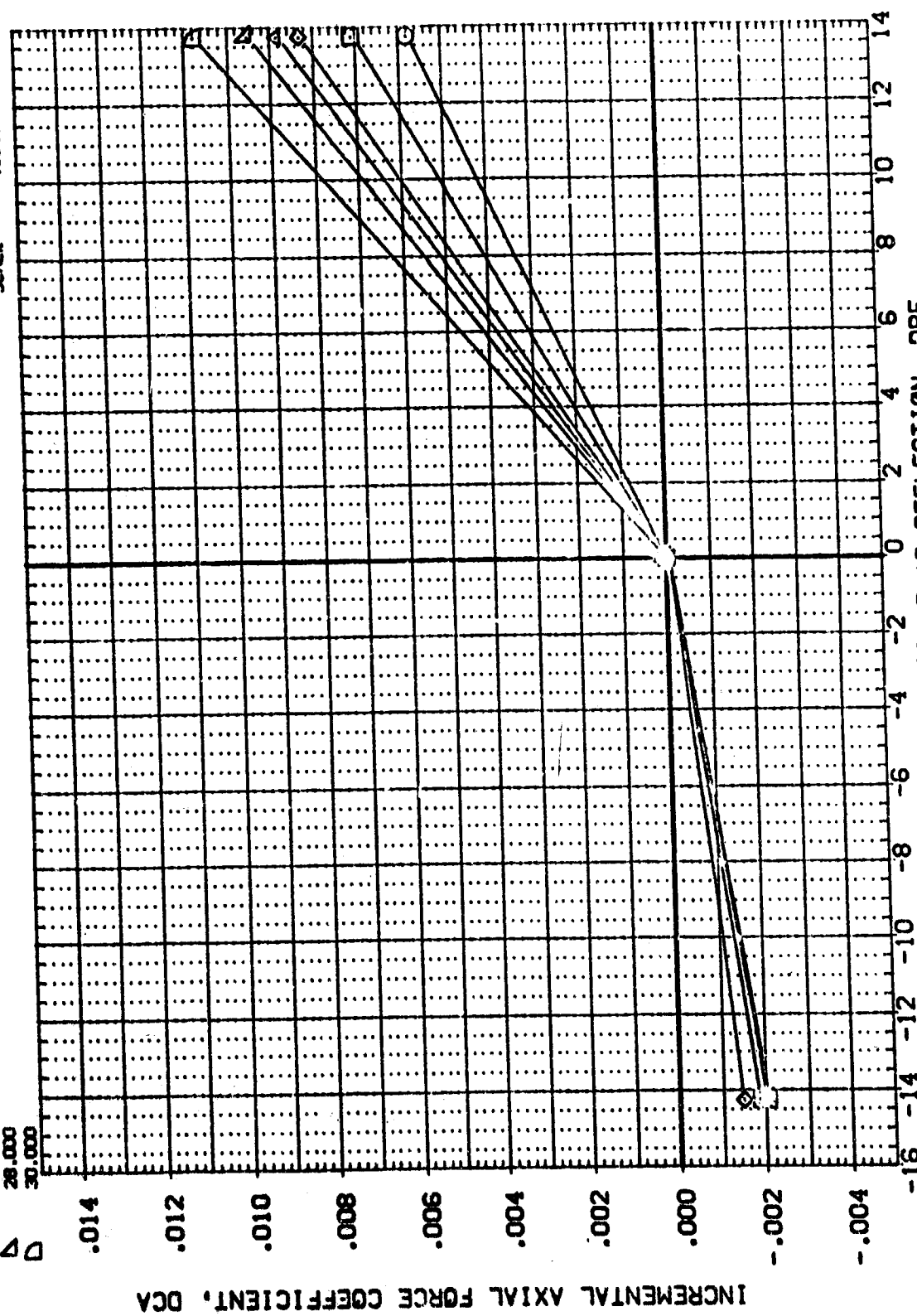


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE

(L87076)

MSFC 574(0A48) ORB 139 W/ALT NOSE

SYMBOL
○
□
◇
△
▽

ALPHA
32.000
34.000
36.000
38.000
40.000

MACH
ELEVTR
SPDRK

PARAMETRIC VALUES
2.990 BETA
.000 AILRON
999.990

.000 DATASET
.000 L87076
.000 L87074

DATA SOURCE
DBF
-14.250
13.750

DBF
.000

DATASET
L87067

REFERENCE INFORMATION
SREF 2690.0000 SQ.FT.
LREF 474.8000 IN.
BREF 936.7000 IN.
XPRP 836.7000 IN.
YPRP .0000 IN.
ZPRP .0000 IN.
SCALE .0040

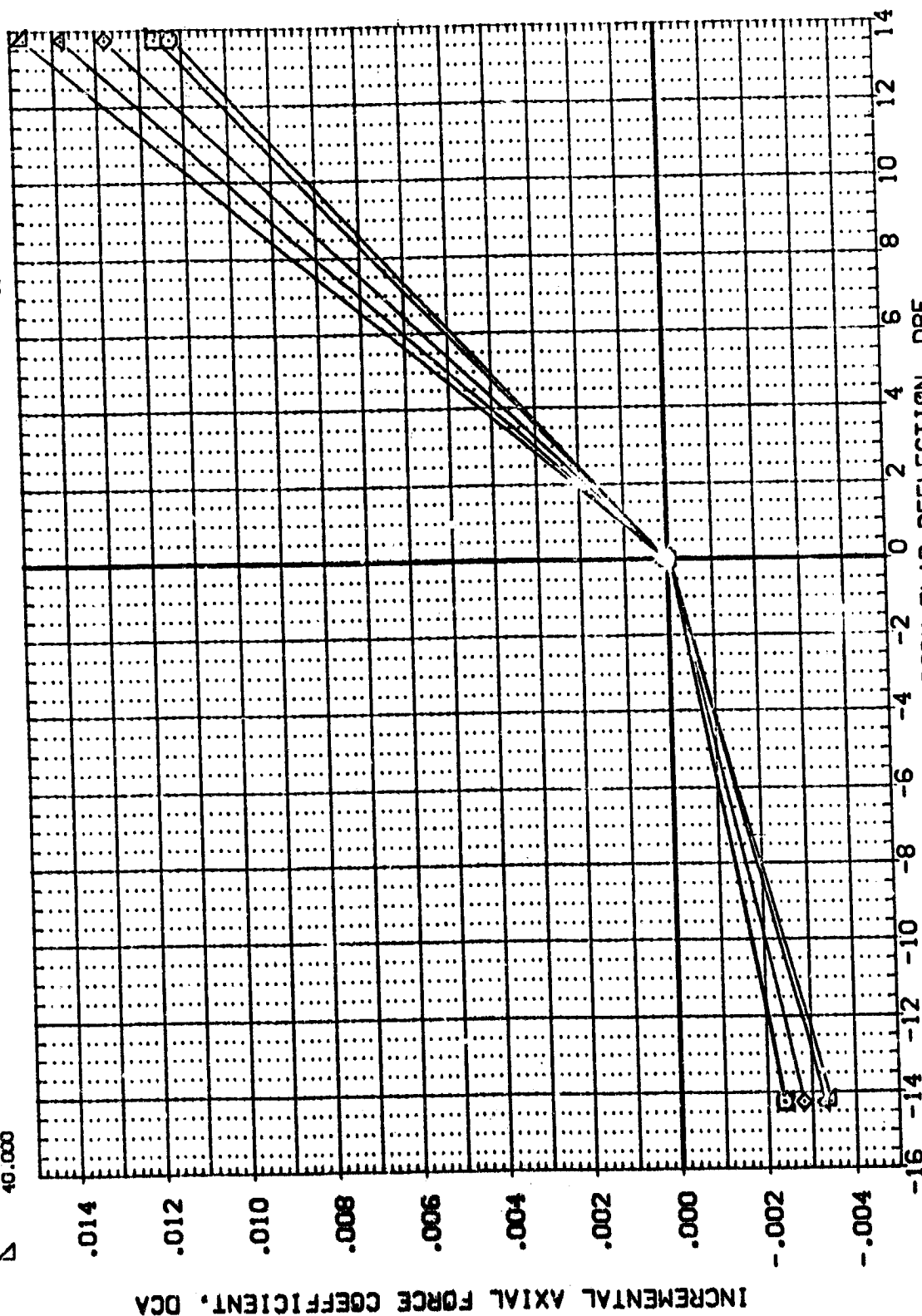


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE
PAGE 1402



(L87076)

MSFC 574(0A48) ORB 139 W/ALT NOSE

REFERENCE INFORMATION
SD.FT. 2690.0000
IN. 474.8000
IN. 936.7000
IN. 838.7000
IN. .0000
IN. .0000
IN. .0000
SCALE .0040

DATA SOURCE
DBF -14.250
13.750
DBF .000
L87067
DATASET L87076
L87074

PARAMETRIC VALUES
MACH 4.960
BETA .000
AILRON 999.990

ALPHA
20.000
22.000
24.000
26.000
28.000
30.000

SYMBOL
□
◇
△
▽
▽

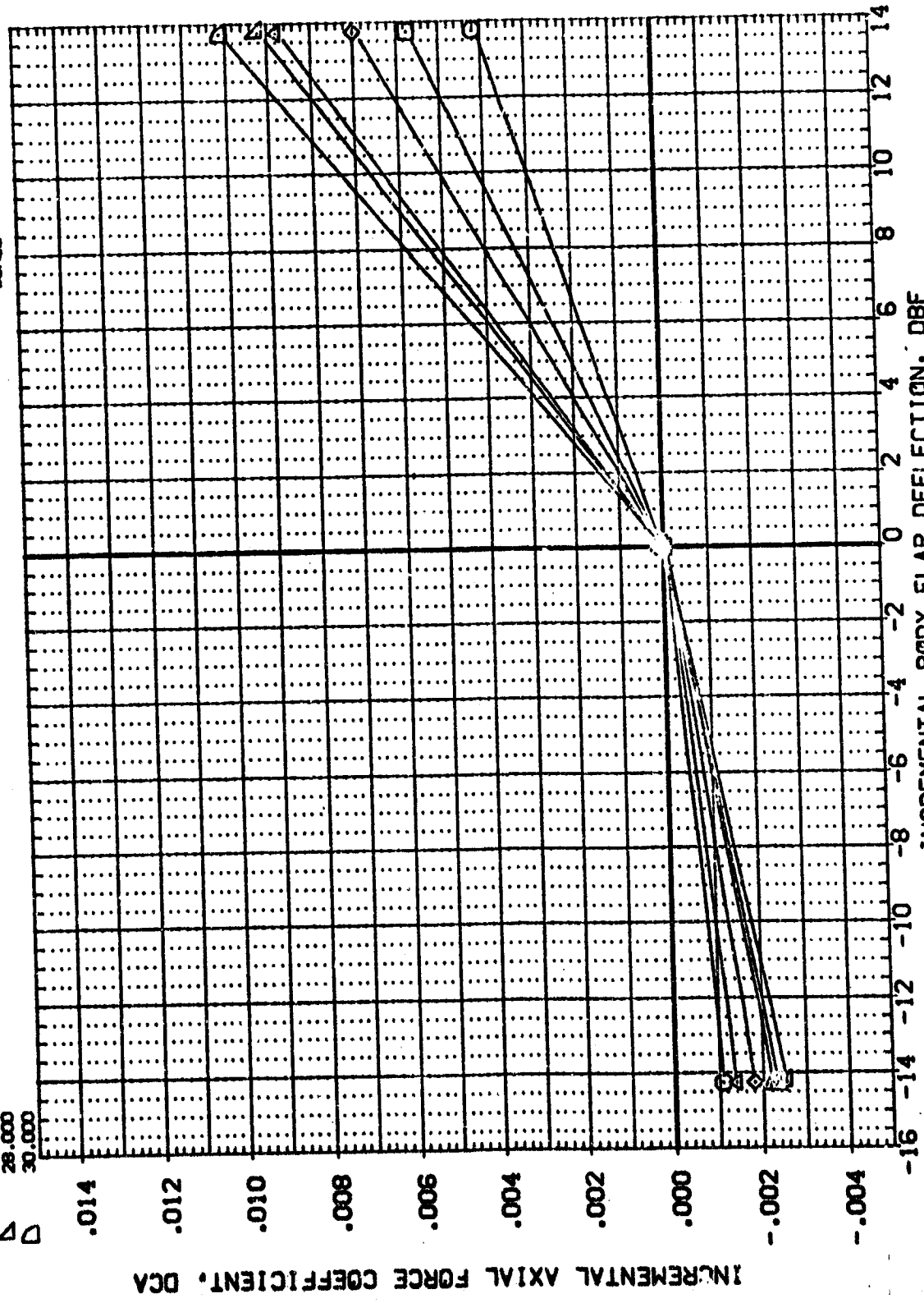


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE

MSFC 574(0A48) ORB 139 W/ALT NOSE

(L87076)

PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION	
SYMBOL	ALPHA	MACH	DATASET	DBF	SREF	SO.FT.
□	32.000	4.960	.000	DBF	LREF	474.8000
□	34.000	.000	.000	-14.250	BREF	936.7000
◊	36.000	999.990	L87076	13.750	XPRP	838.7000
◊	38.000		L87074		YPRP	.0000
△	40.000				ZPRP	.0000
△					SCALE	.0040

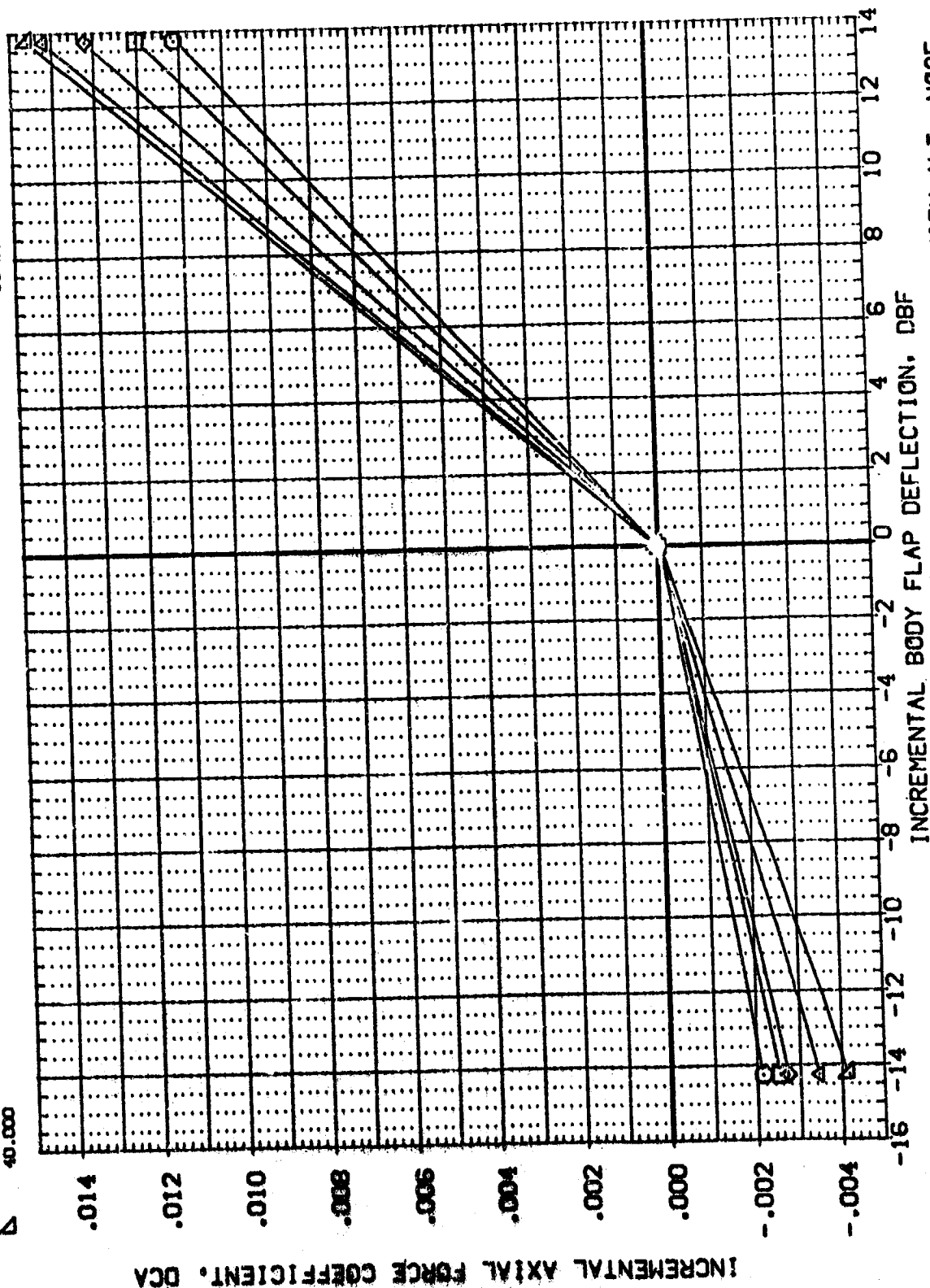


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE



MSFC 574(0A48) ORB 139 W/ALT NOSE

(L87075)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION		
ALPHA	MACH	.000	BETA	SREF	2690.0000	SQ.FT.
2.000	ELEVTR	.000	AILRON	LREF	474.8000	IN.
4.000	SPDRK	.000	999.990	BREF	959.7000	IN.
6.000		.000		XTRP	839.7000	IN.
8.000		.000		YTRP	.0000	IN.
10.000		.000		ZTRP	.0000	IN.
		.000		SCALE	.0040	

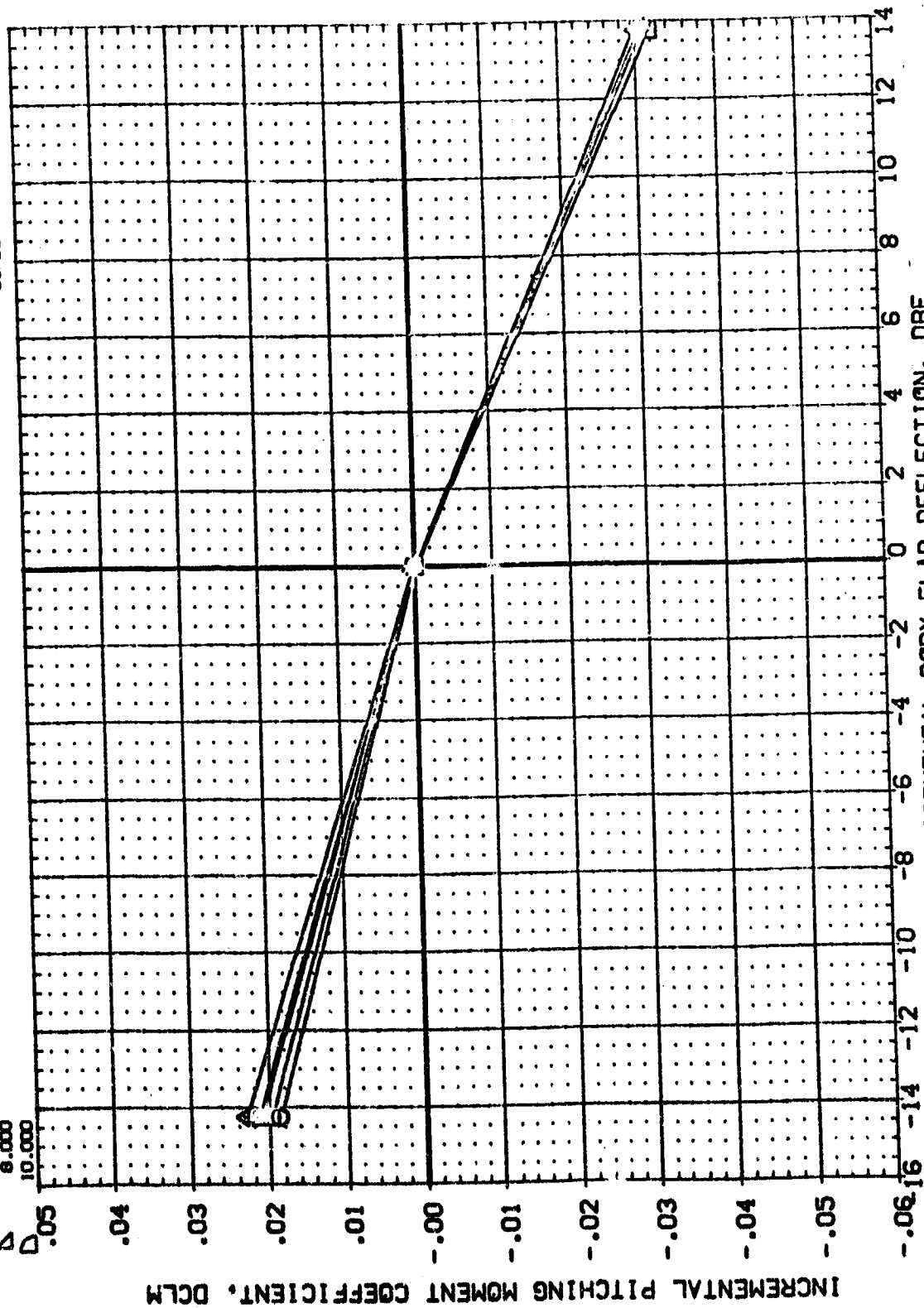


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE

(L87075)

MSFC 574(0A48) ORB 139 W/ALT NOSE

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
SYMBOL	VALUE	DBF	DBF	SREF	SO.FT.
ALPHA	12.000	.000	.000	LREF	474.8000
HACH	.600	.000	.000	BREF	936.7000
ELEVTR	.000	.000	.000	YREF	839.7000
SPDBRK	999.990	.000	.000	YCRP	.0000
	14.000	.000	.000	ZCRP	.0000
	16.000	.000	.000	SCALE	.0040
	18.000	.000	.000		
	20.000	.000	.000		

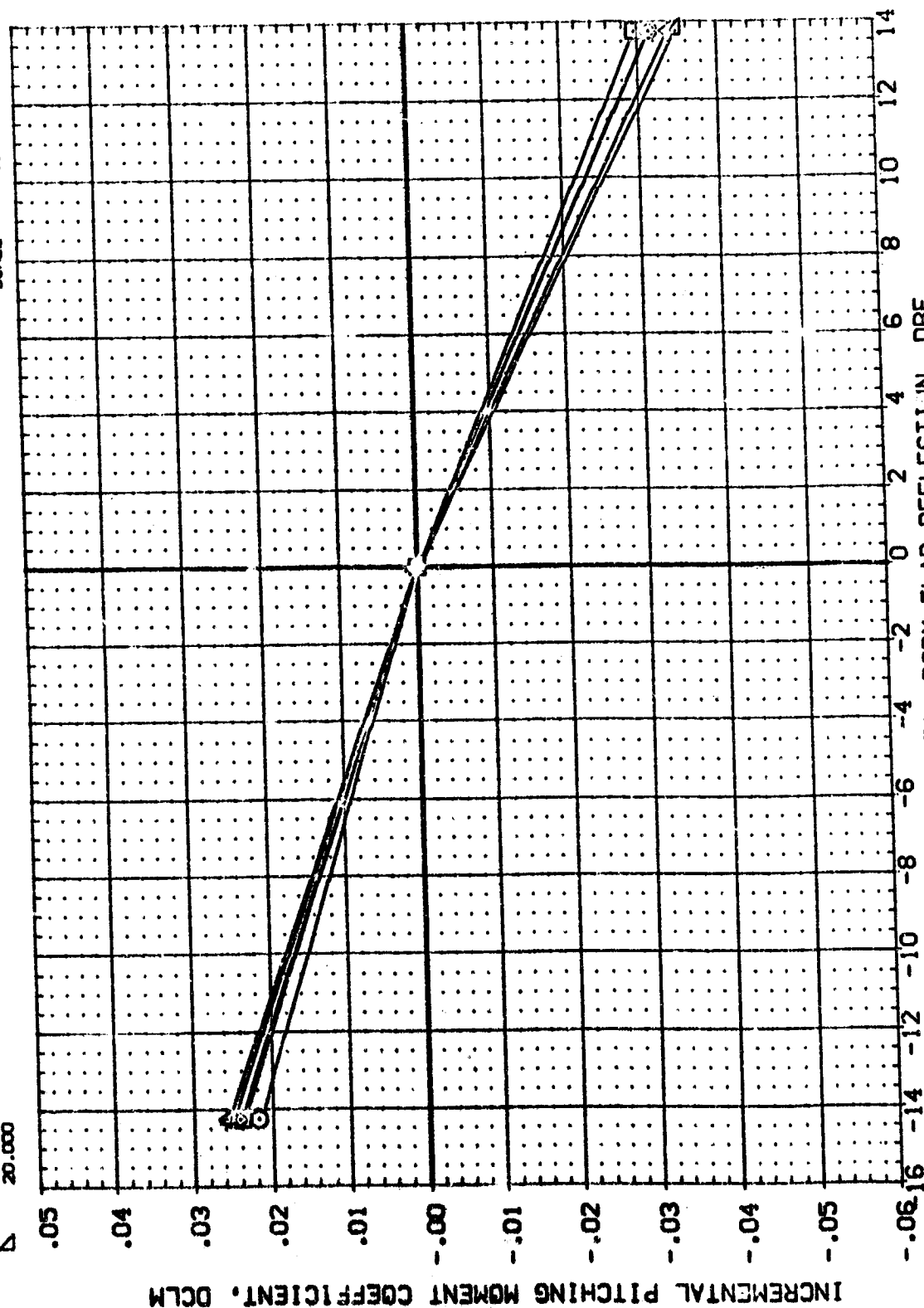


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE



MSFC 574(0A48) ORB 139 W/ALT NOSE (L87075)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	MACH	.000	BETA	SREF	2690.0000
.000	.900	.000	.000	LREF	474.8000
2.000	ELEVTR	.000	DBF	BREF	933.7000
4.000	SPDRK	.000	-14.250	XGRP	838.7000
6.000		.000	-13.750	YGRP	.0000
8.000		.000		ZGRP	.0000
10.000		.000		SCALE	.0040

SYMBOL: □ ◇ 4 4 4 4

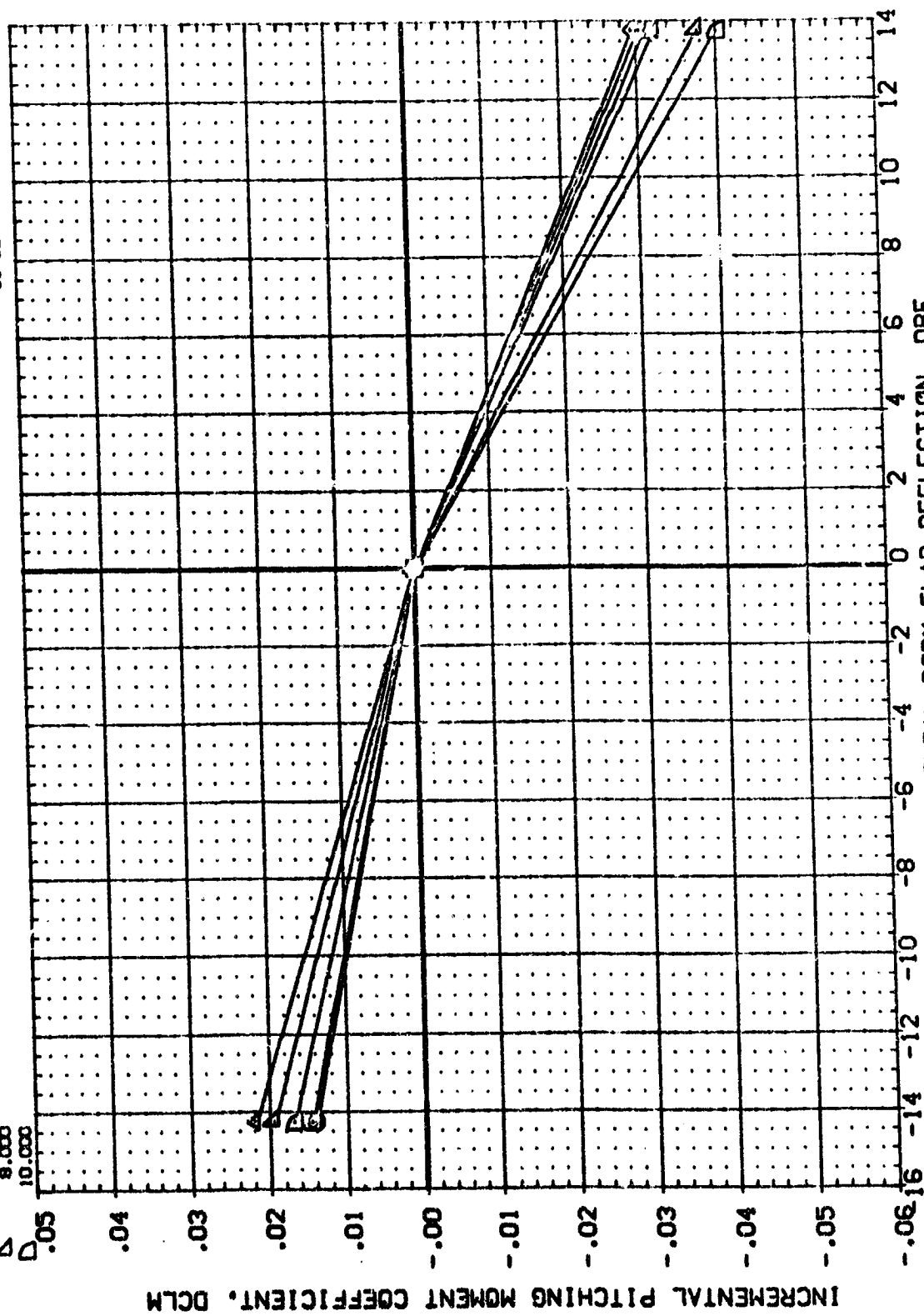


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE

(L87075)

MSFC 574(0A4E) ORB 139 W/ALT NOSE

SYMBOL		ALPHA		MACH		PARAMETRIC VALUES		DATA SOURCE		DATASET		DBF		REFERENCE INFORMATION	
□	12.000		.900		.000		.000		.000		.000		.000		2690.0000
◇	14.000		.000		.000		.000		.000		.000		.000		474.8000
△	16.000		.999.999		.000		.000		.000		.000		.000		936.7000
▽	18.000				.000		.000		.000		.000		.000		838.7000
▽	20.000				.000		.000		.000		.000		.000		.0000
															.0040

SCALE

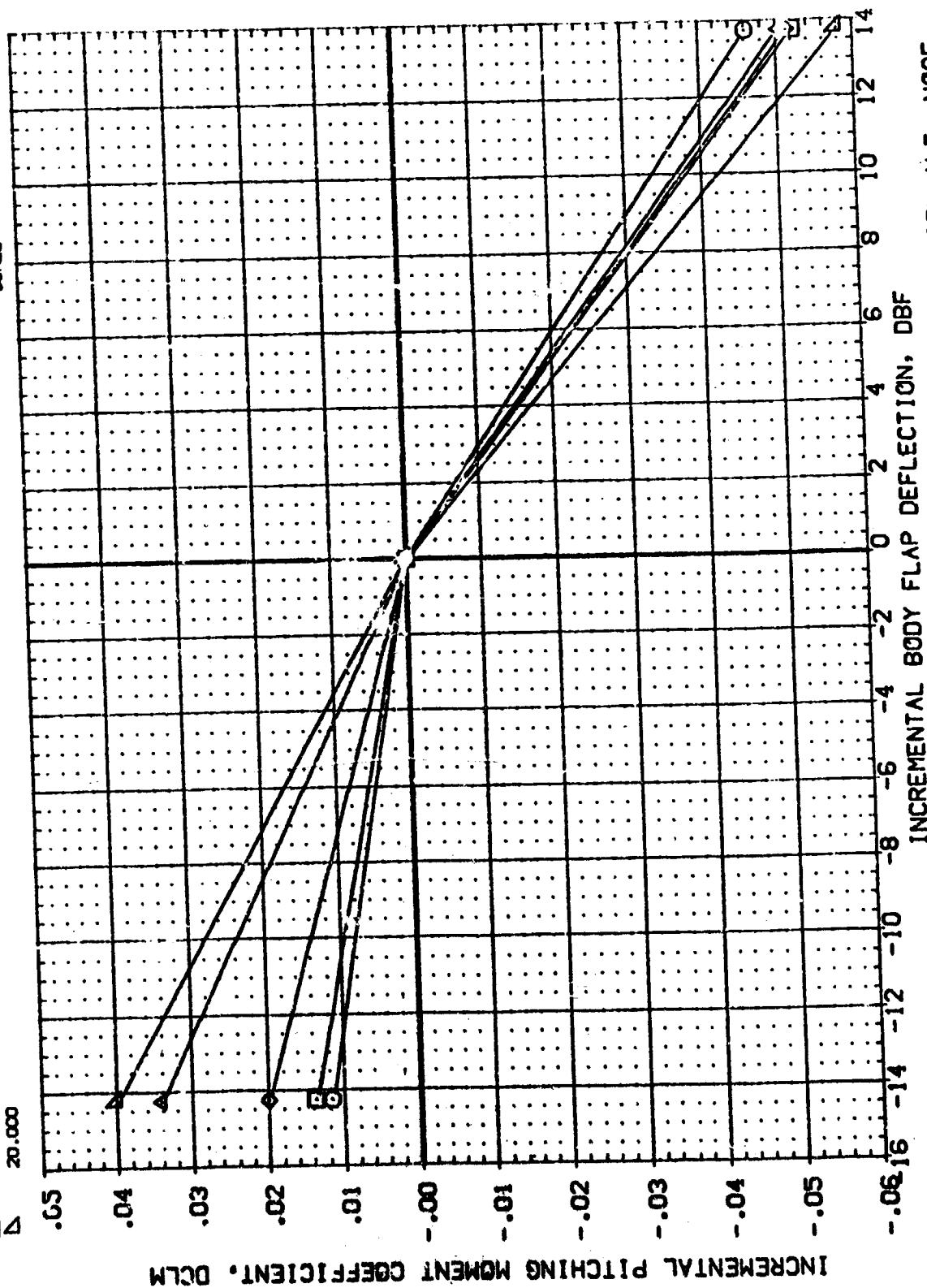


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE



MSFC 574(0A48) ORB 139 W/ALT NOSE (L87075)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	MACH	.000	DATASET	SREF	SO.FT.
2.000	ELEVTR	.000	.000	LREF	IN.
4.000	SPOBRK	.500	L87075	XREF	IN.
6.000		.000	L87073	YREF	IN.
8.000		.000		ZREF	IN.
10.000		.000		SCALE	.0040

DATA SOURCE DBF -14.250
DATASET DBF L87066

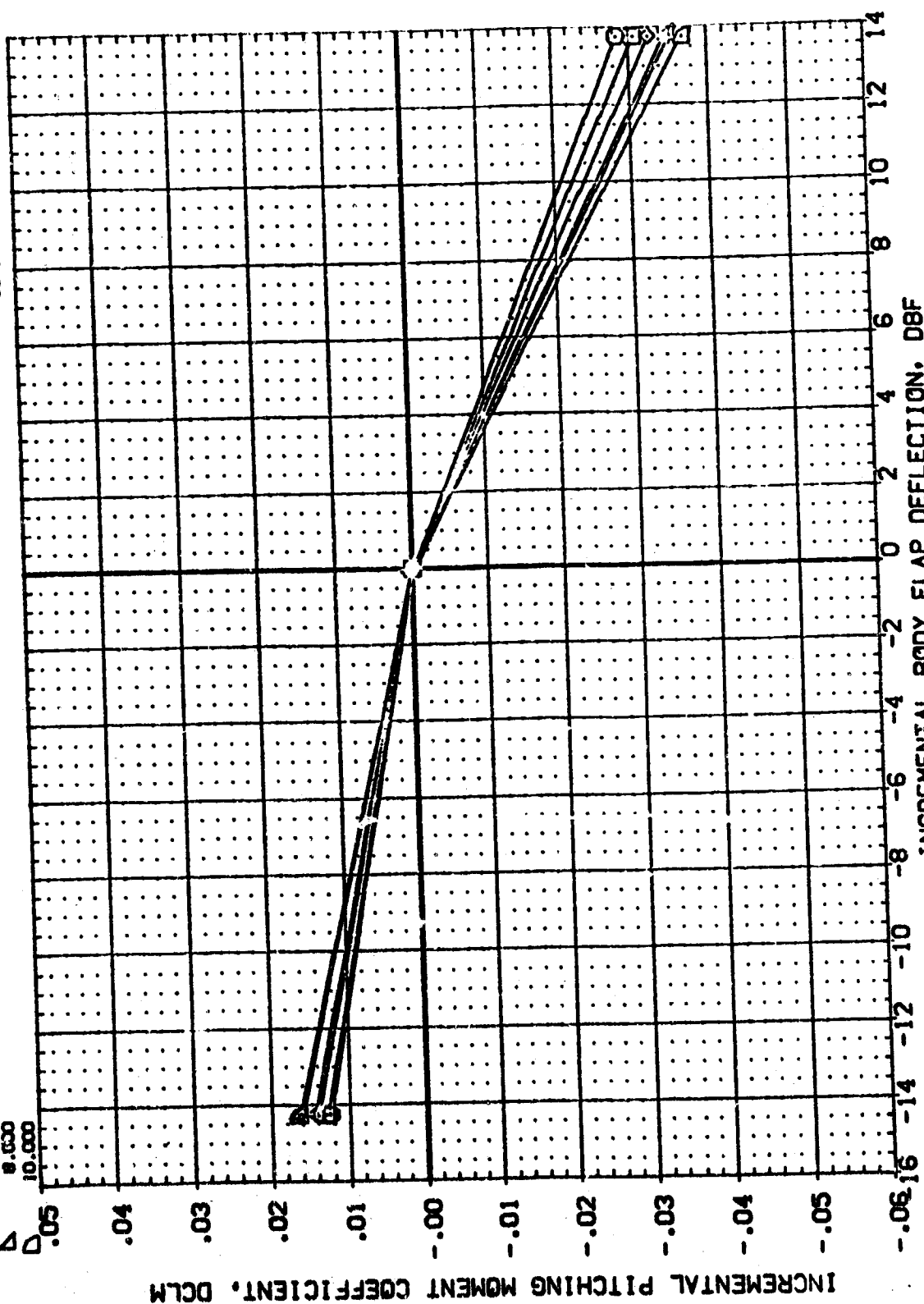


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE

PAGE 1409

(L87075)

REFERENCE INFORMATION	
SREF	2690.0000 SO.FT.
LREF	474.6000 IN.
BREF	936.7000 IN.
XMP	838.7000 IN.
YMP	.0000 IN.
ZMP	.0000 IN.
SCALE	.0040



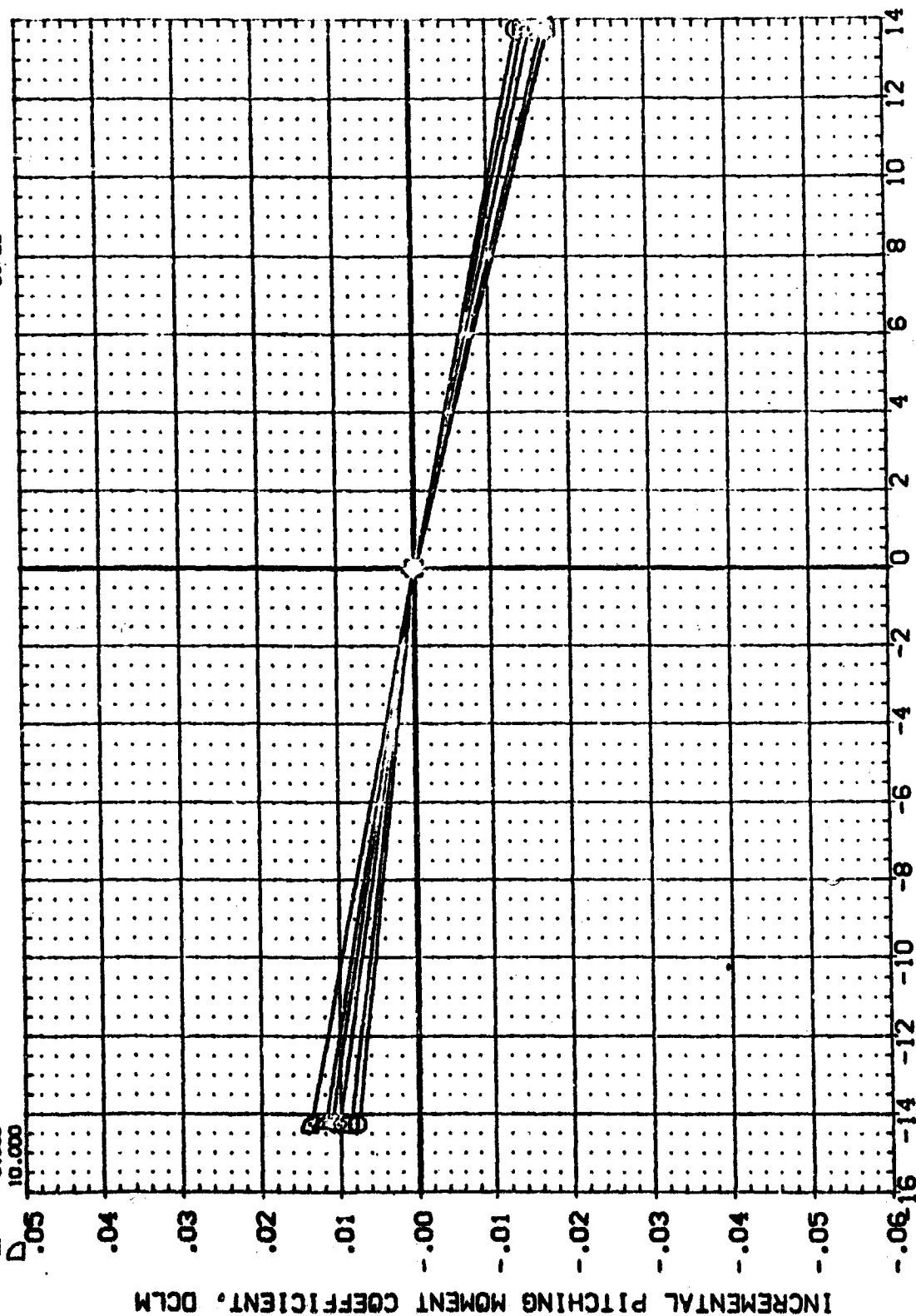
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MSFC 574(0A48) ORB 139 W/ALT NOSE

(L87075)

SYMBOL		ALPHA		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
○	□	.000	MACH	1.960	BETA	.000	DATASET	SREF	2690.000
◇	△	2.000	ELEVTR	.000	AILRON	.000	DBF	LREF	474.800
△	△	4.000	SPOBRK	999.990				SREF	936.700
△	△	6.000						YPRP	838.700
△	△	8.000						ZPRP	.0000
△	△	10.000						SCALE	.0040
									IN.
									IN.
									IN.
									IN.
									IN.



INCREMENTAL BODY FLAP DEFLECTION, DBF

FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE

MMSEC 57A (QA48) QRB 139 W/ALT NOSE

5meol 00044

ALPHA
12.000
14.000
16.000
18.000
20.000

**MACH
ELEVTR
SPDRX**

1.950
000.000
066.990

PARAMETRIC VALUES	
1.960	BETA
000	AILRON

DATA SOURCE
DEF
-14.250
13.750

DATA SET 187066 DBF

3367
3368
3369

REFERENCE INFORMATION	SO. FT.
2690.0000	IN.
474.8000	IN.
935.7000	IN.
838.7000	IN.
.0000	IN.
.0040	IN.

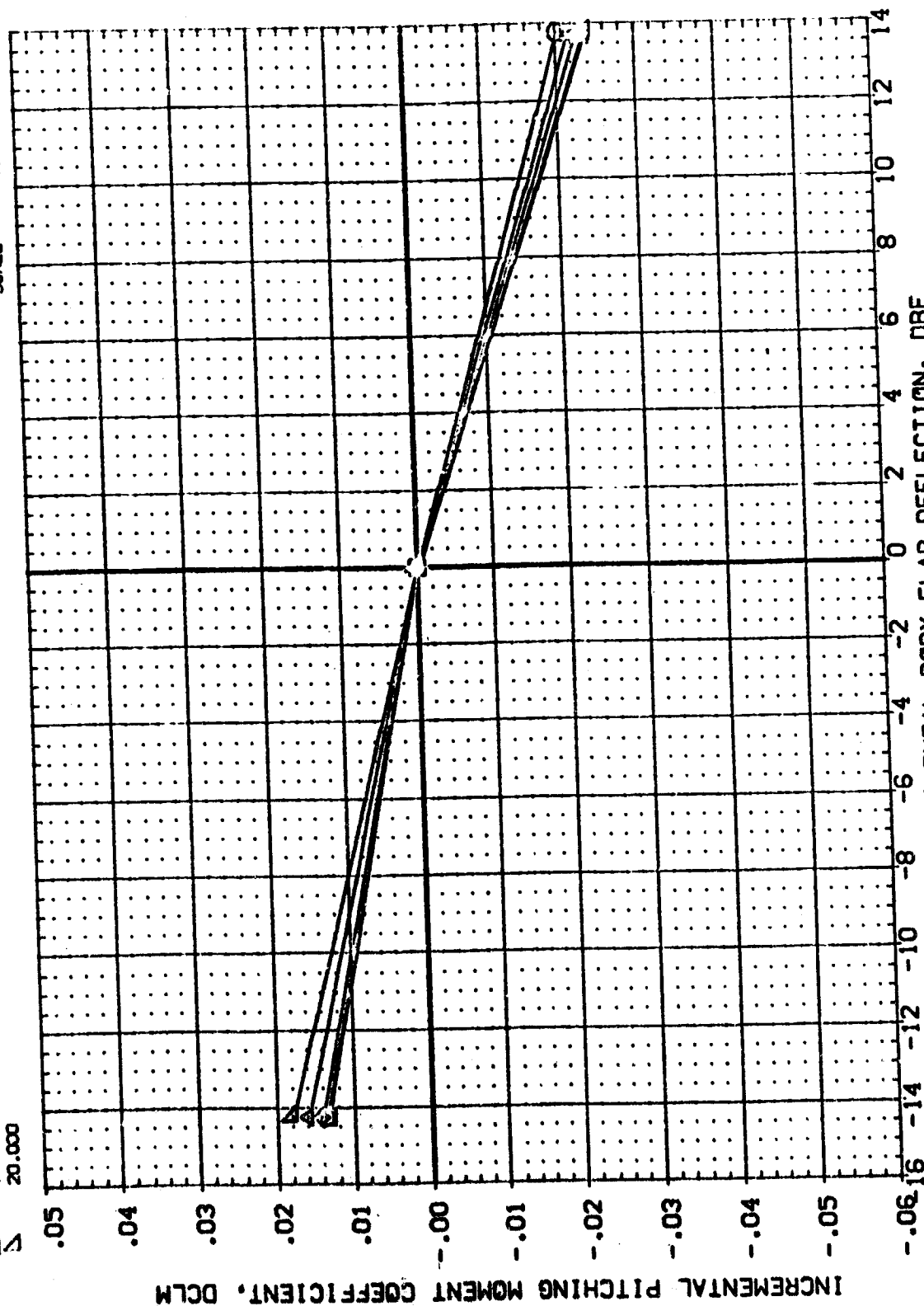


FIG. 37



MSFC 574(0A48) ORB 139 W/ALT NOSE (L87075)

SYMBOL		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	.000	MACH	2.990	BETA	.000	SREF	2690.0000
	2.000	ELEVTR	.000	AILRON	.000	LREF	474.8000
	4.000	SPDRK	999.990			BREF	936.7000
	6.000					XREF	838.7000
	8.000					YREF	.0000
	10.000					ZREF	.0000
						SCALE	.0040

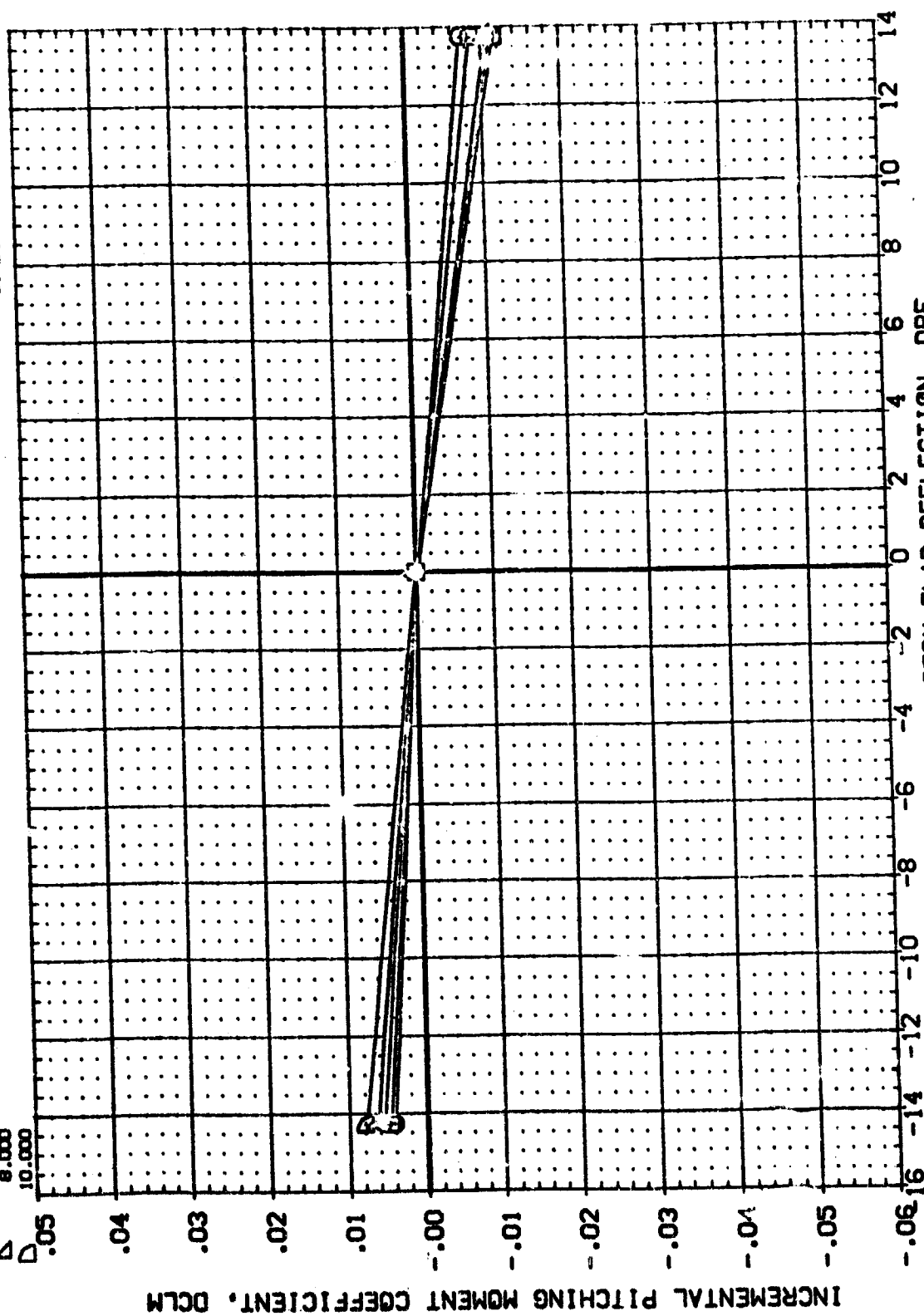


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE

(L87075)

MSFC 574(0A48) ORB 139 W/ALT NOSE

REFERENCE INFORMATION
SREF 2690.0000 SQ.FT.
LREF 474.8000 IN.
BREF 956.7000 IN.
XMRP 836.7000 IN.
YMRP .0000 IN.
ZMRP .0000 IN.
SCALE .0040

DATA SOURCE
DBF -14.250
L87075 13.750

PARAMETRIC VALUES
BETA .000
AILRON 999.990

MACH 2.950
ELEVTR .000
SPDRBK 999.990

ALPHA 12.000
14.000
16.000
18.000
20.000

SYMB. \square \square \triangle \triangle \triangle

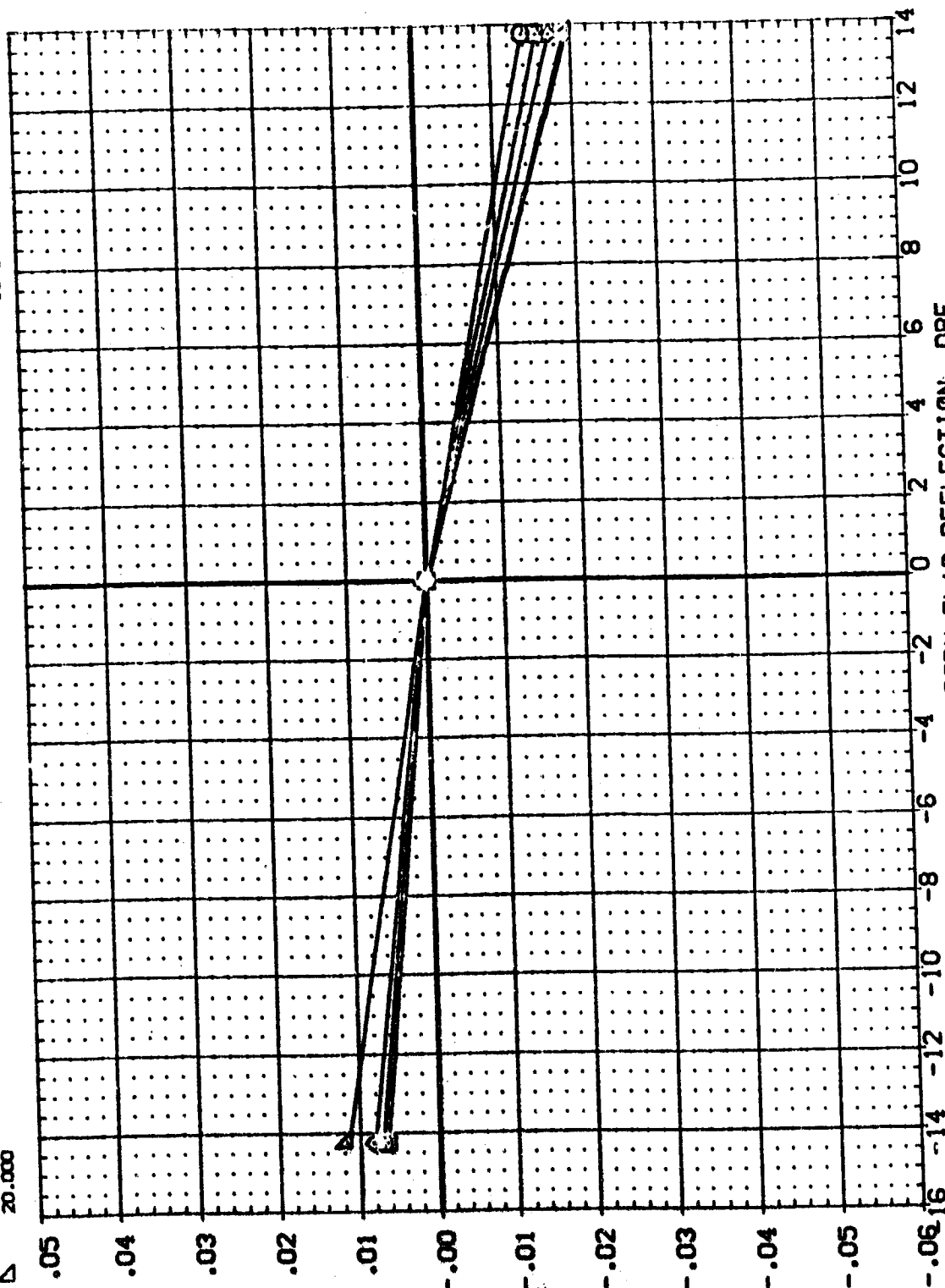


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE



MSFC 574(0A48) ORB 139 W/ALT NOSE

(L87075)

SYMBOL		ALPHA		MACH		PARAMETRIC VALUES		DATA SOURCE		DATASET		DBF		SREF		REFERENCE INFORMATION	
□		.000				4.950		.000		L87075		-14.250		LREF		2680.0000	
□		2.000		ELEVTR		.000		.000		L87065		13.750		LREF		474.8000	
□		4.000		SPDRK		999.990		.000		L87073				SREF		936.7000	
△		6.000												XPRP		838.0000	
△		8.000												YPRP		.0000	
△		10.000												ZPRP		.0000	
														SCALE		.0040	

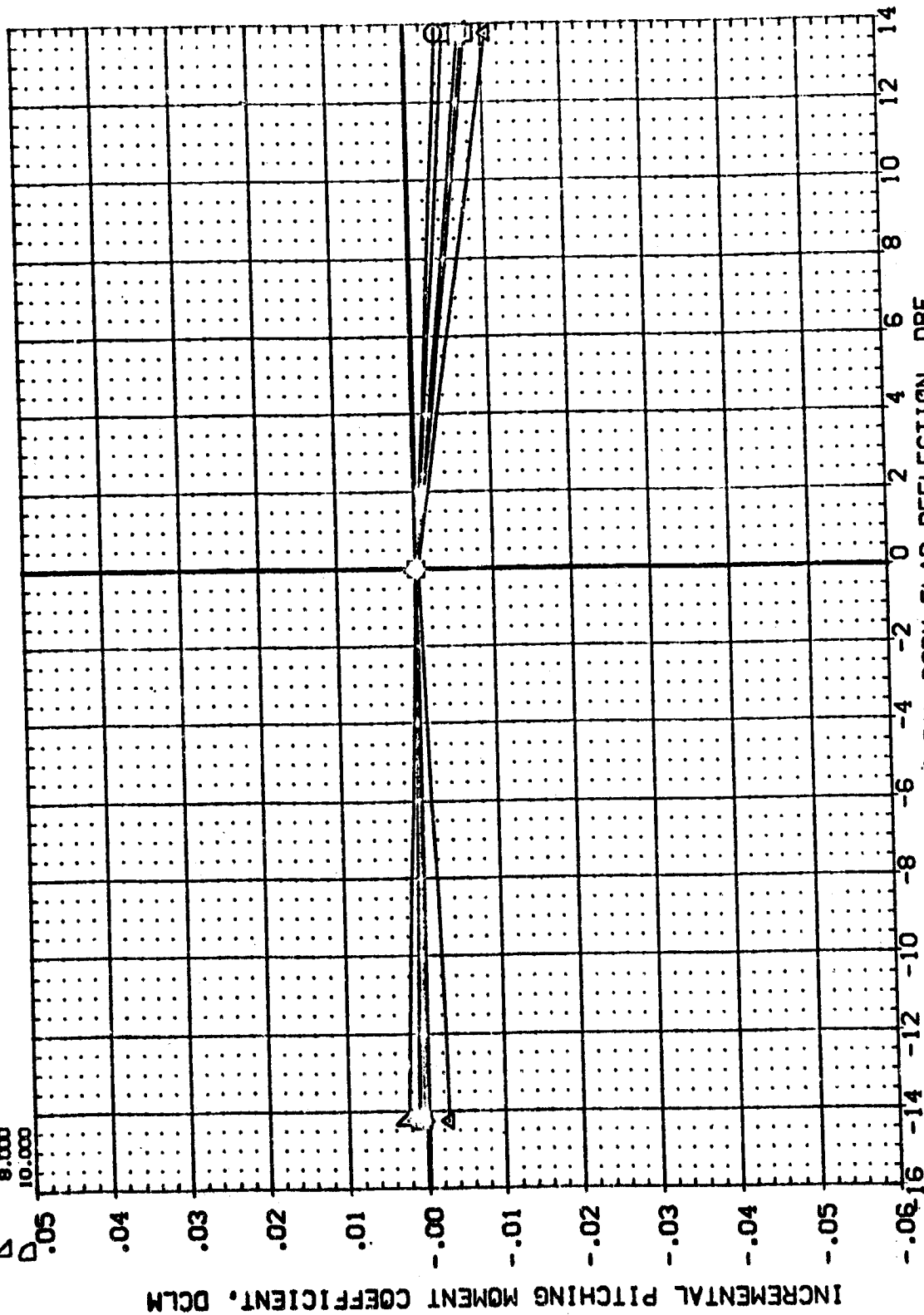


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE

(L87075)

MSFC 574(0A48) ORB 139 W/ALT NOSE

SYMBOL		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
○	ALPHA	MACH	BETA	DBF	SREF	2680.0000	SQ.FT.
□	12.000	4.960	.000	DBF	LREF	474.8000	IN.
◇	14.000	ELEVTR	AILRON	DBF	SREF	938.7000	IN.
△	16.000	999.990		DBF	XREF	838.7000	IN.
▽	18.000	SPDRX		DBF	YREF	.0000	IN.
	20.000			DBF	ZREF	.0000	IN.
					SCALE	.0040	

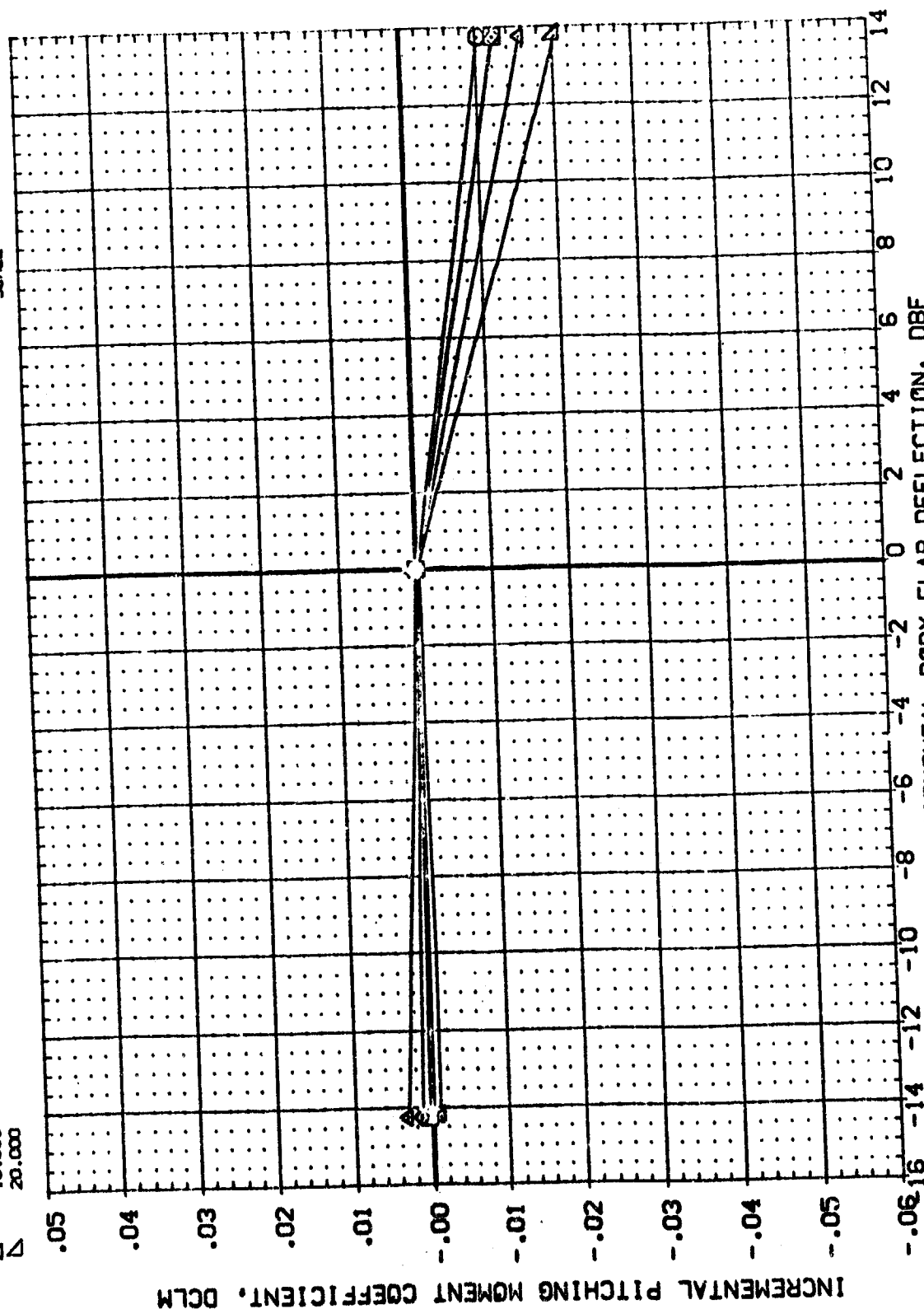


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE



MSFC 574(0A48) ORB 139 W/ALT NOSE (L87076)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION										
SYMBOL	ALPHA	HACH	ELEVTR	SPOBRK	999.999	BETA	ATLRON	.000	L87076	.000	L87067	SREF	2690.0000	SD.FT.
□	20.000					2.990						LREF	474.8000	IN.
□	22.000					.000						BREF	936.7000	IN.
◇	24.000					999.999						XREF	838.7000	IN.
△	26.000											YREF	.0000	IN.
▽	28.000											ZREF	.0000	IN.
◇	30.000											SCALE	.0040	

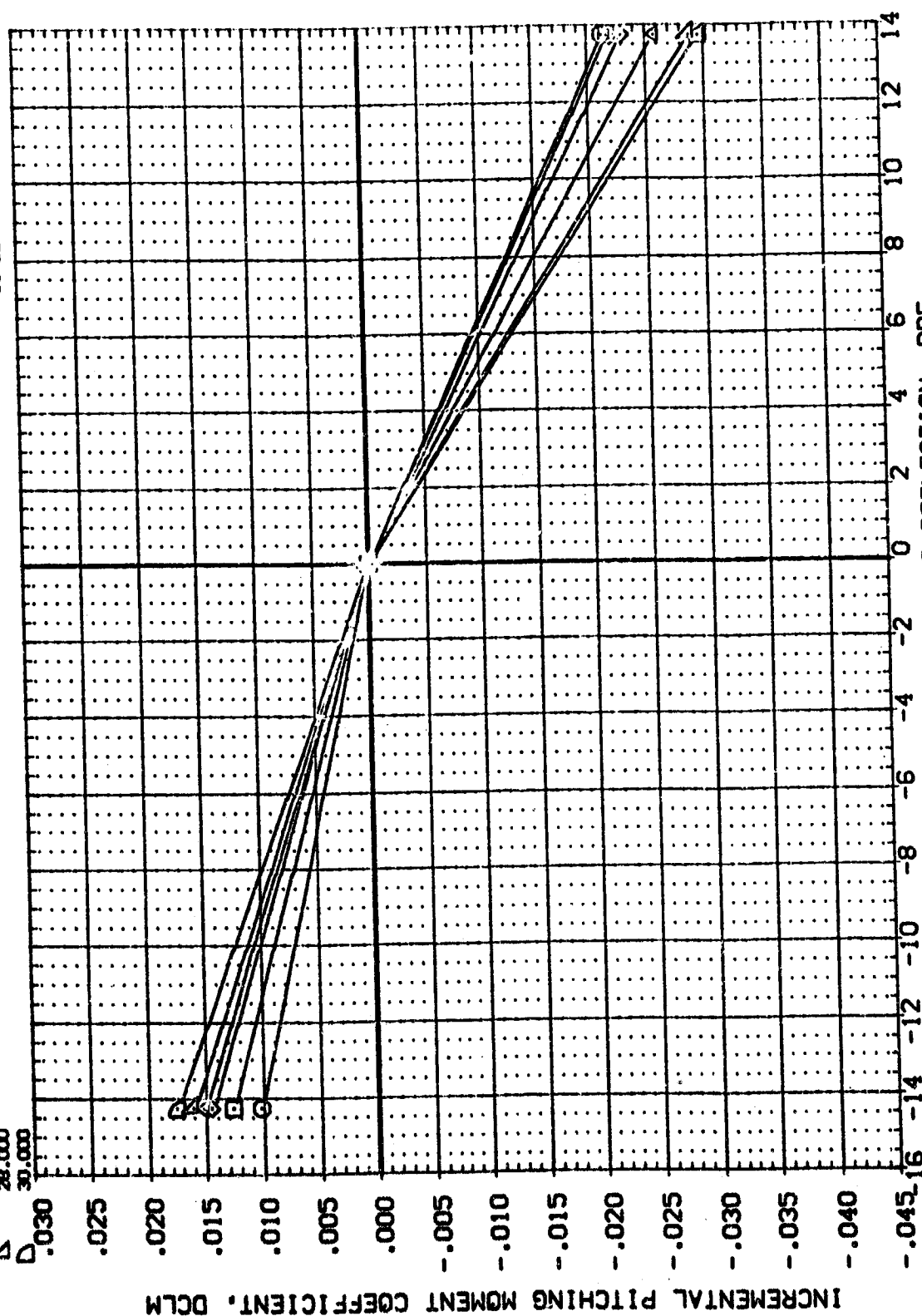


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE

(L87076)

MSFC 574(0A48) ORB 139 W/ALT NOSE

PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION		
SYMBOL	ALPHA	MACH	BETA	DATA SET	DBF	SREF	SO.FT.
○	32.000	2.990	.000	.000	.000	LREF	474.8000
□	34.000	.000	AILRON	L87076	L87067	BREF	936.7000
△	36.000	999.990		L87074		XREF	838.7000
▽	38.000					YREF	.0000
	40.000					ZREF	.0000
						SCALE	.0040

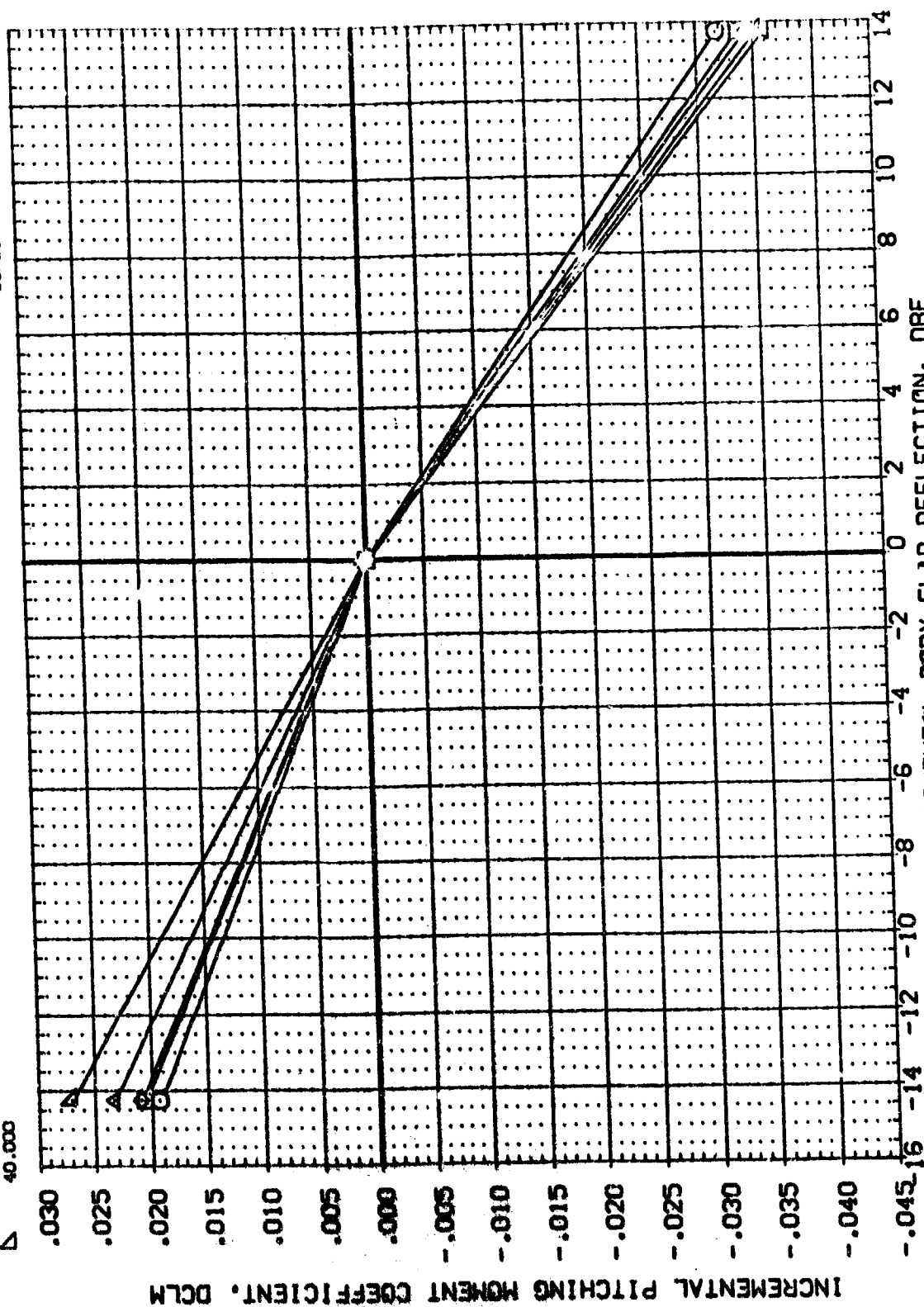


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE

(L87076)

WACH	4.960	BETA
ELEVTR	.000	AILRON
SPT06RX	999.990	

DATA SOURCE
DBF
-14.250
13.750

DATA? DEF
L87067

REFERENCE	IN	LOCATION	Q.	FT.
2690	0000		11	11
474	8000		11	11
926	7000		11	11
833	7000		11	11
	0000		11	11
	0000		11	11
	0040		11	11

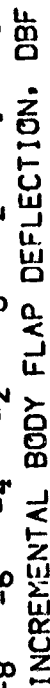


FIG. 37
INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NUSE

(L87076)

MSFC 574(0A48) ORB 139 W/ALT NOSE

SYMBOL	ALPHA	MACH	ELEVTR	SPOBRK	PARAMETRIC VALUES	.000	DATASET	DSF	DATA SOURCE	DATASET	DSF	SREF	LRREF	BRREF	XREF	YREF	ZREF	SCALE	REFERENCE INFORMATION	SG, FT.
□	32.000				4.950	BETA	.000	L87076	-14.250	L87076	.000	2690.0000	474.8000	933.7000	833.7000	.0000	.0000	.0340	N	N
□	34.000				.000	AILRON	.000	L87076	13.750	L87076	.000								N	N
◇	36.000				999.990														N	N
△	38.000																		N	N
▽	40.000																		N	N

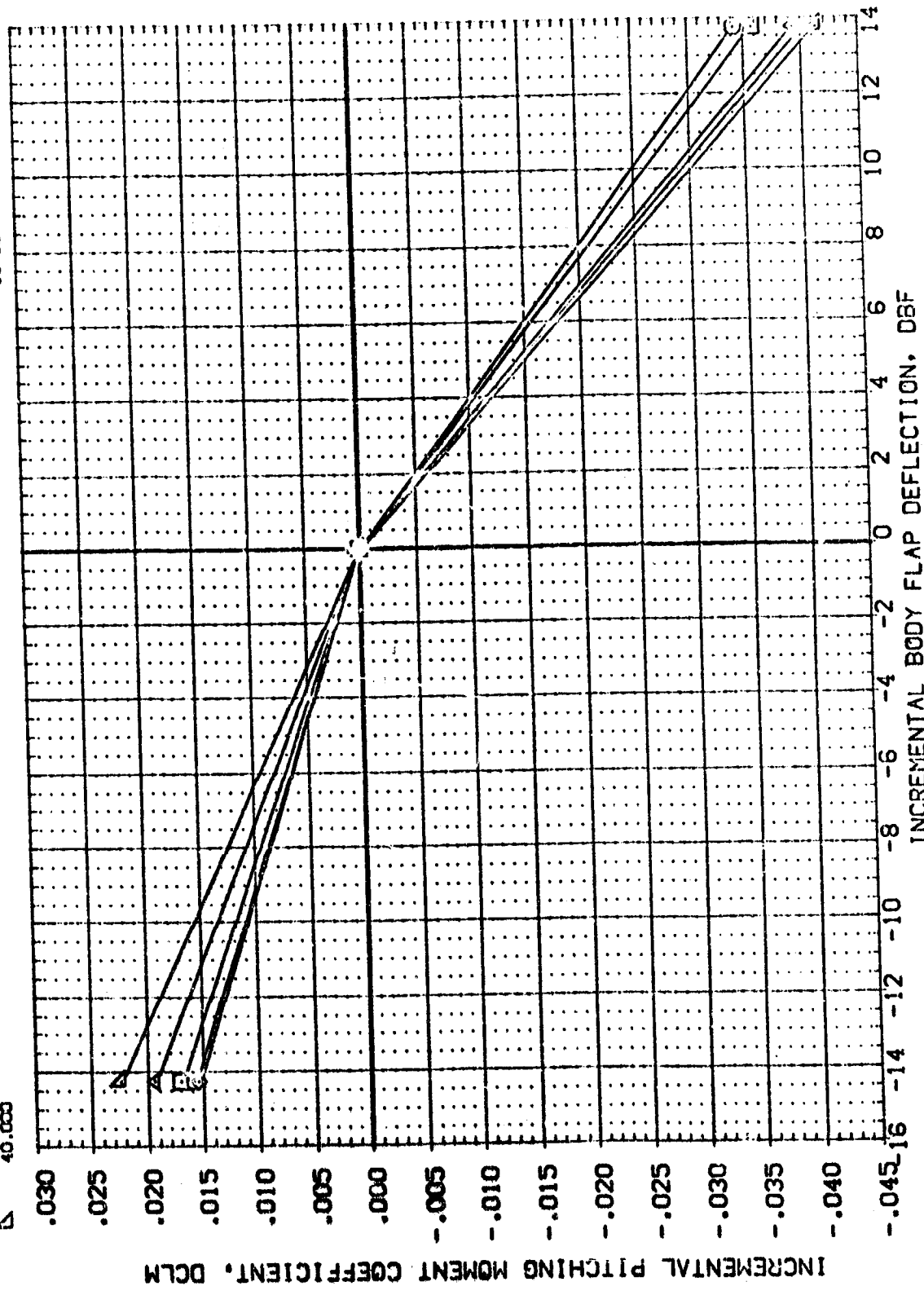


FIG. 37 INCREMENTAL BODY FLAP EFFECTIVENESS FOR ORBITER 139 WITH ALT. NOSE



DATA SET SYMBOL	CONF IGURATION DESCRIPTION	BETA	ELEVTR	SPOBRK	BOFLAP	REFERENCE INFORMATION	SO.FT.
(C87595)	MSFC 574(CA48) ORB 1398 V/H19	.000	.000	999.990	.000	SREF 2690.0000	IN.
(C87591)	MSFC 574(CA48) ORB 1398 V/H20	.000	.000	999.990	.000	LREF 474.0000	IN.
(C87590)	DATA NOT AVAILABLE	.000	.000	999.990	.000	BREF 939.7000	IN.
(C87593)	MSFC 574(CA48) ORB 1398 V/H23	.000	.000	999.990	.000	YMRP 839.7000	IN.
						ZMRP .0000	IN.
						SCALE .0010	

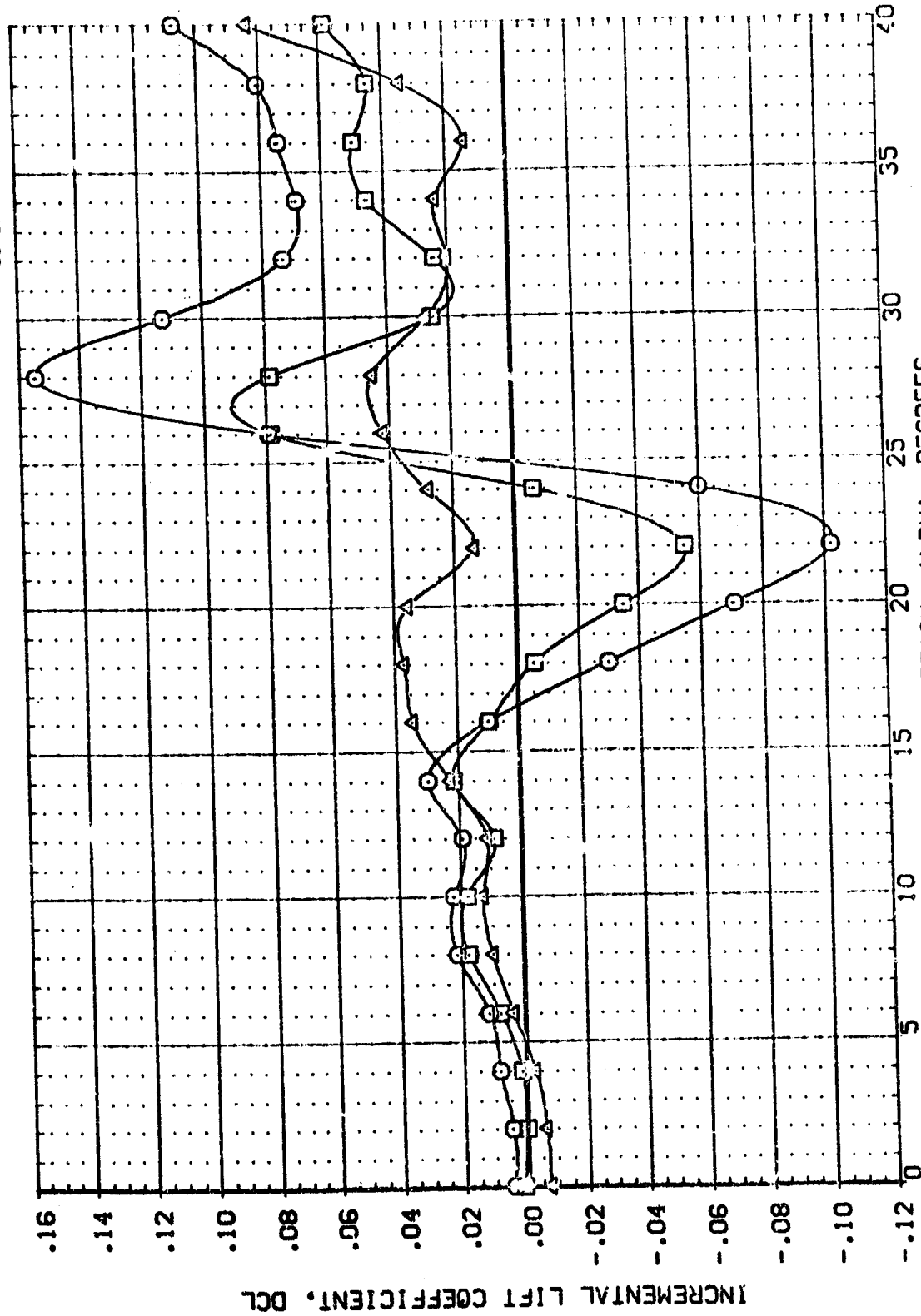


FIG. 38 INCREMENTAL EFFECT DUE TO TRIMMER FOR ORBITER 139B

(M)MACH = .60

DATA SET SYMBOL. CONFIGURATION DESCRIPTION
 (087585) MSFC 574(DA48) CRB 1399 V/H19
 (087591) MSFC 574(DA48) CRB 1399 V/H20
 (087593) DATA NOT AVAILABLE CRB 1399 V/H23

BETA ELEVTR SPOSRK BDELAP REFERENCE INFORMATION
 .000 .000 999.993 .000 LREF 2693.0000
 .000 .000 999.993 .000 LREF 474.8000
 .000 .000 999.993 .000 BREF 935.7000
 .000 .000 999.993 .000 XREF 838.7000
 .000 .000 999.993 .000 YREF .0000
 .000 .000 999.993 .000 ZREF .0000
 .000 .000 999.993 .000 SCALE

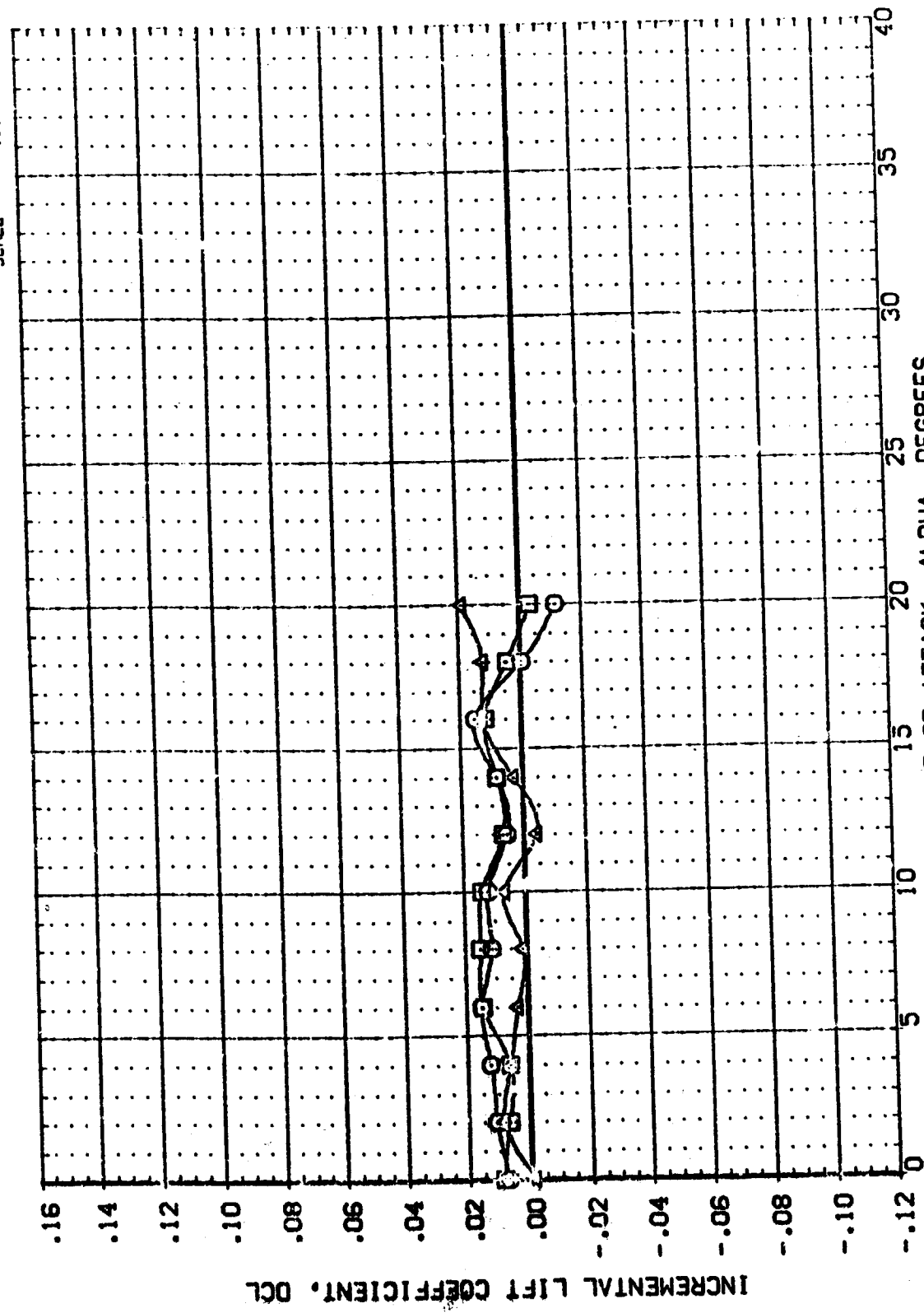




FIG. 38 INCREMENTAL EFFECT DUE TO TRIMMER FOR ORBITER 139B
 (S)MACH = .90
 PAGE 1422



DATA SET SYMBOL:   CONFIGURATION DESCRIPTION
MSFC 574(0448) ORB 1398 V/H19
MSFC 574(0448) ORB 1398 V/H20
DATA NOT AVAILABLE
MSFC 574(0448) ORB 1398 V/H23

BETA
.000
.000
.000
.000
.000
ELEVTR
.000
.000
.000
.000
.000
SPDBRK
999.990
999.990
999.990
999.990
999.990
BOFLAP
.000
.000
.000
.000
.000
REFERENCE INFORMATION
SREF 2590.0000 SQ.FT.
LREF 474.6000 IN.
BREF 933.7000 IN.
XREF 838.7000 IN.
YREF .0000 IN.
ZREF .0000 IN.
SCALE .0040

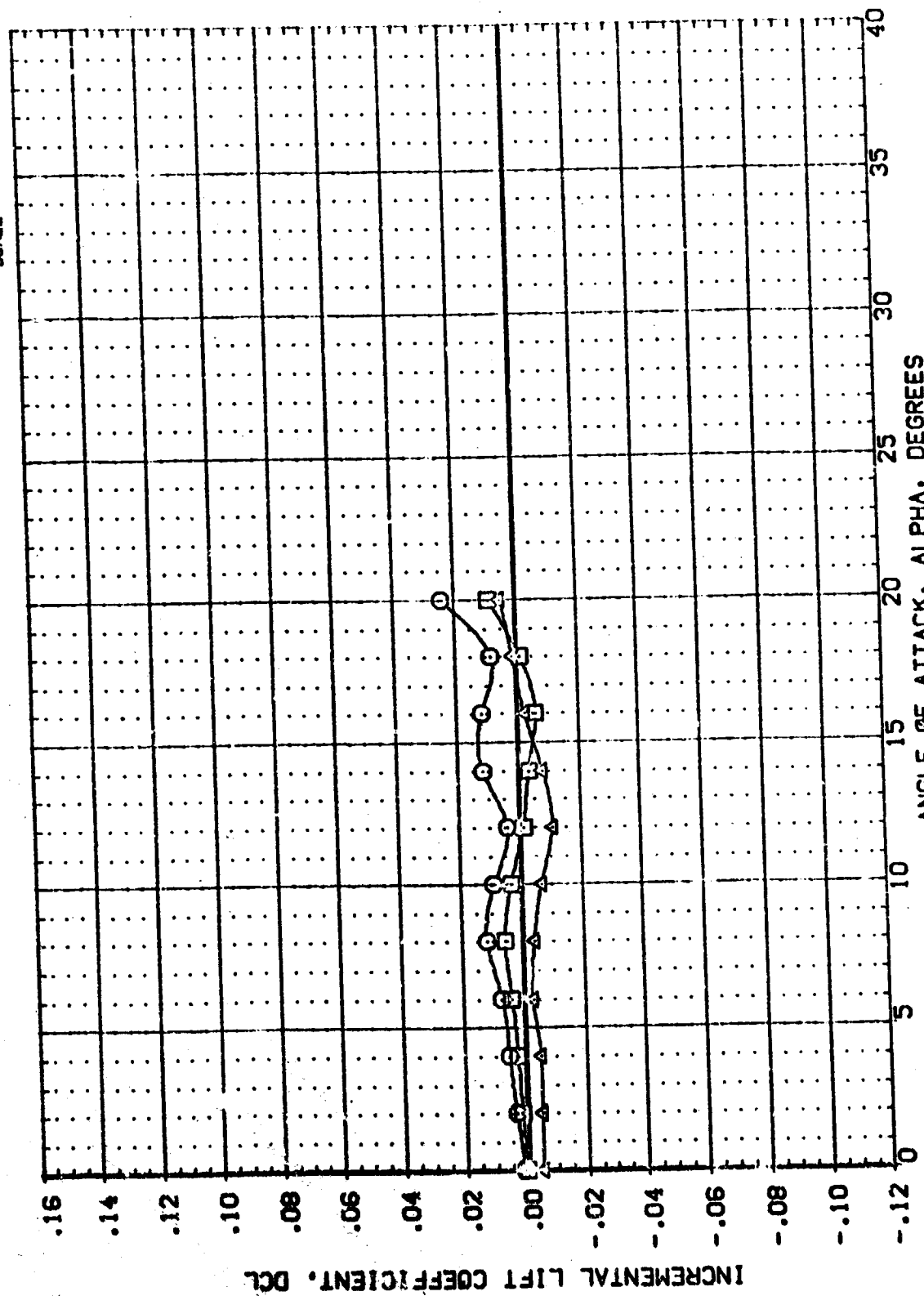



FIG. 38 INCREMENTAL EFFECT DUE TO TRIMMER FOR ORBITER 1398

(C)MACH = 1.20

DATA SET SYMBOL:  MSFC 574(0A48) CRB 1398 V/H19
 (087585) MSFC 574(0A48) CRB 1398 V/H20
 (087591) DATA NOT AVAILABLE
 (087500) DATA NOT AVAILABLE
 (087593)

FIGURATION DESCRIPTION

BETA: .000
 .000
 .000
 .000

ELEVTR: .000
 .000
 .000
 .000

SPOBRK: 999.990
 999.990
 999.990
 999.990

BOFLAP: .000
 .000
 .000
 .000

REFERENCE INFORMATION

SREF: 2690.0000 SQ.FT.
 LREF: 474.8500 IN.
 BREF: 933.7000 IN.
 XREF: 838.7000 IN.
 YREF: .0000 IN.
 ZREF: .0000 IN.
 SCALE: .0010

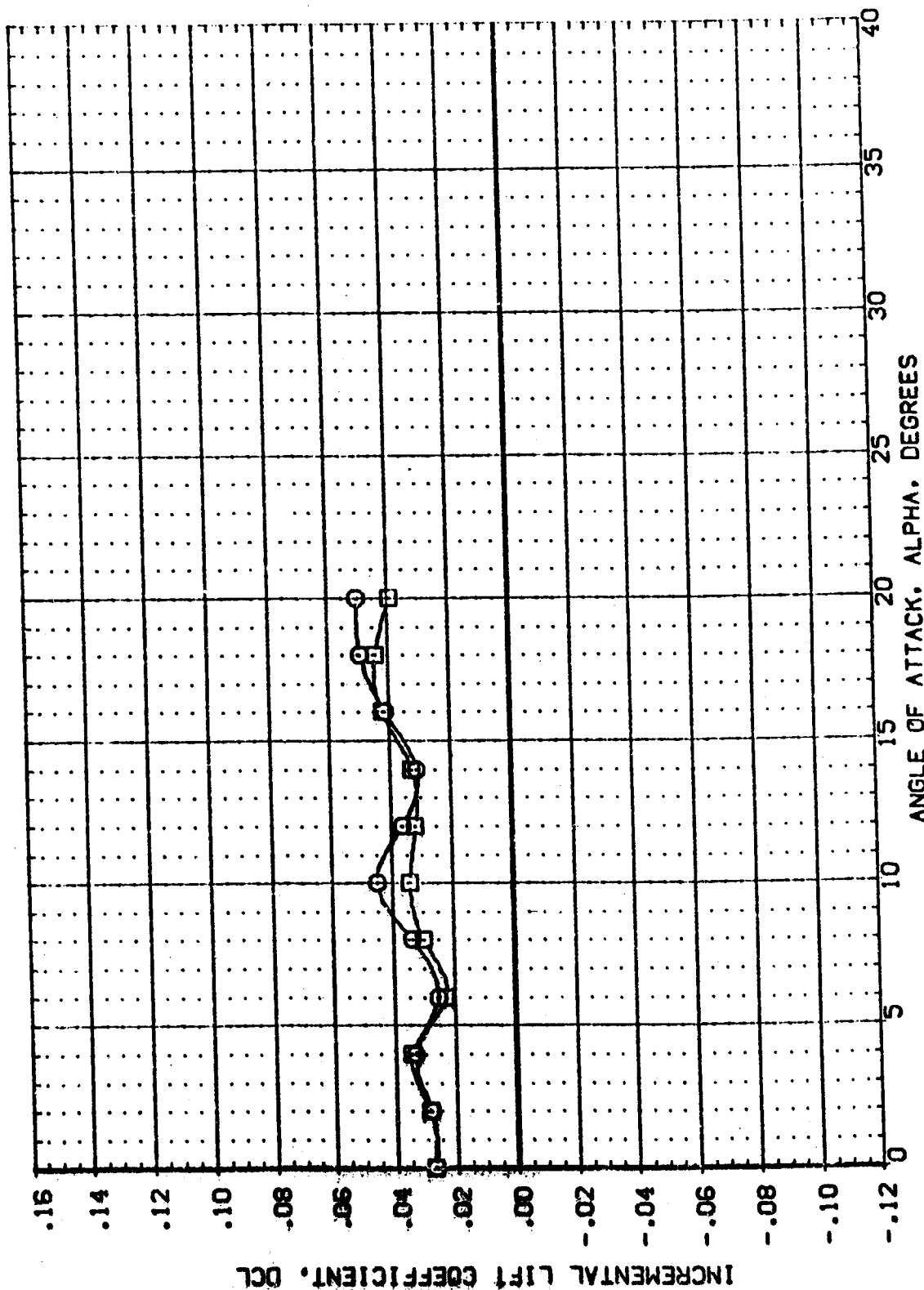


FIG. 38 INCREMENTAL EFFECT DUE TO TRIMMER FOR ORBITER 139B

(CD)MACH = 1.96

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	SPOBRK	BOFLAP	REFERENCE INFORMATION
(087585)	HSFC 574(0A48) ORB 1398 V/H19	.000	.000	559.550	.000	SREF 2690.0000 SO.FT.
(087591)	HSFC 574(0A48) ORB 1398 V/H20	.000	.000	559.550	.000	LREF 474.8000 IN.
(087592)	HSFC 574(0A48) ORB 1398 V/H21	.000	.000	559.550	.000	BREF 936.7000 IN.
(087593)	HSFC 574(0A48) ORB 1398 V/H22	.000	.000	559.550	.000	XREF 838.7000 IN.
						YREF 0.0000 IN.
						ZREF 0.0000 IN.
						SCALE .0040

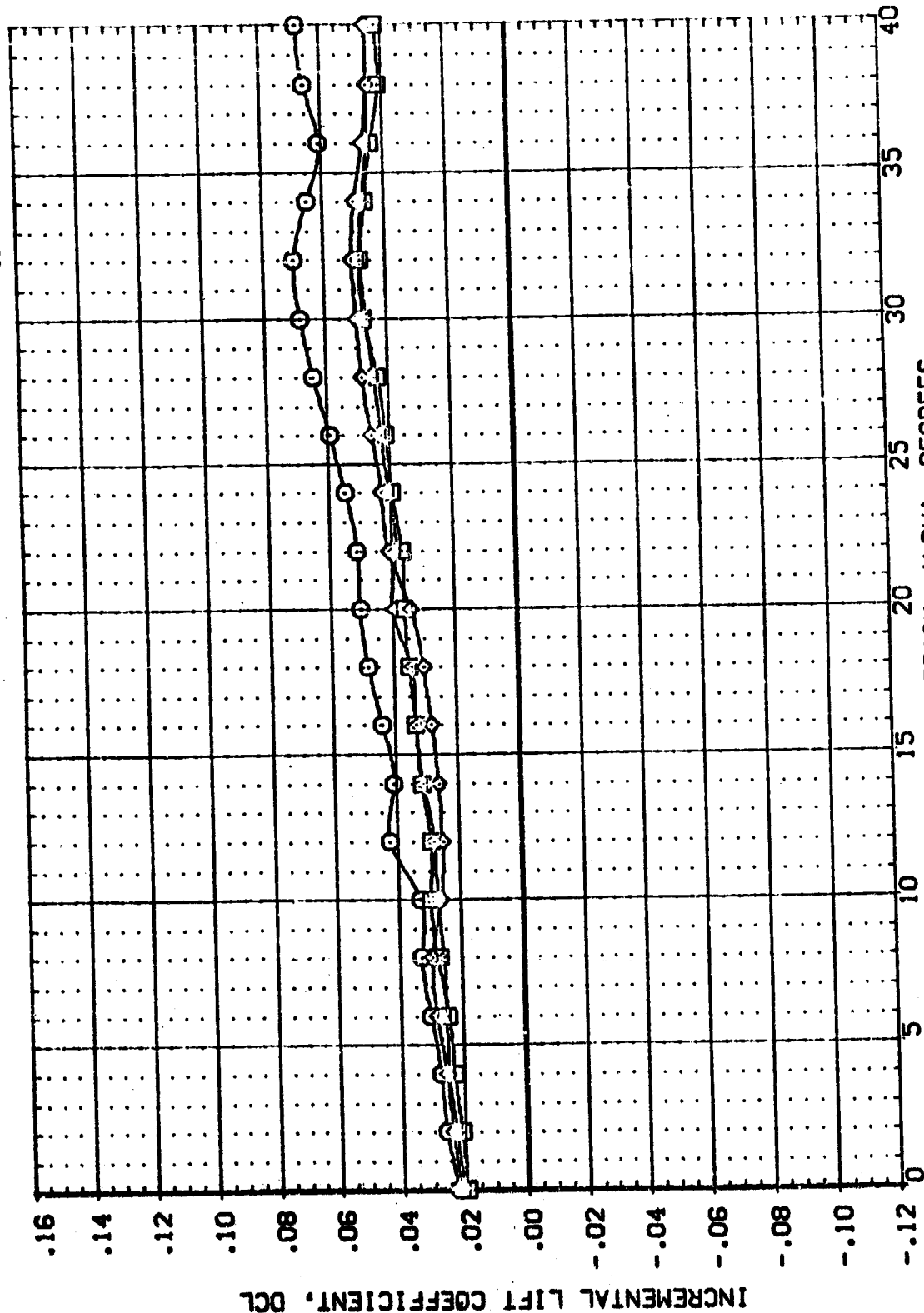


FIG. 38 INCREMENTAL EFFECT DUE TO TRIMMER FOR ORBITER 1398

(E)MACH = 2.99

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	REFERENCE INFORMATION	
(087585)	HSFC 574(0A48)	OR8 1398 V/H19	SREF	2690.0000
(087591)	HSFC 574(0A48)	OR8 1398 V/H20	LREF	474.8000
(087592)	HSFC 574(0A48)	OR8 1398 V/H22	BREF	936.7000
(087593)	HSFC 574(0A48)	OR8 1398 V/H23	YMRP	838.7000
			ZMRP	.0000
			SCALE	.0040

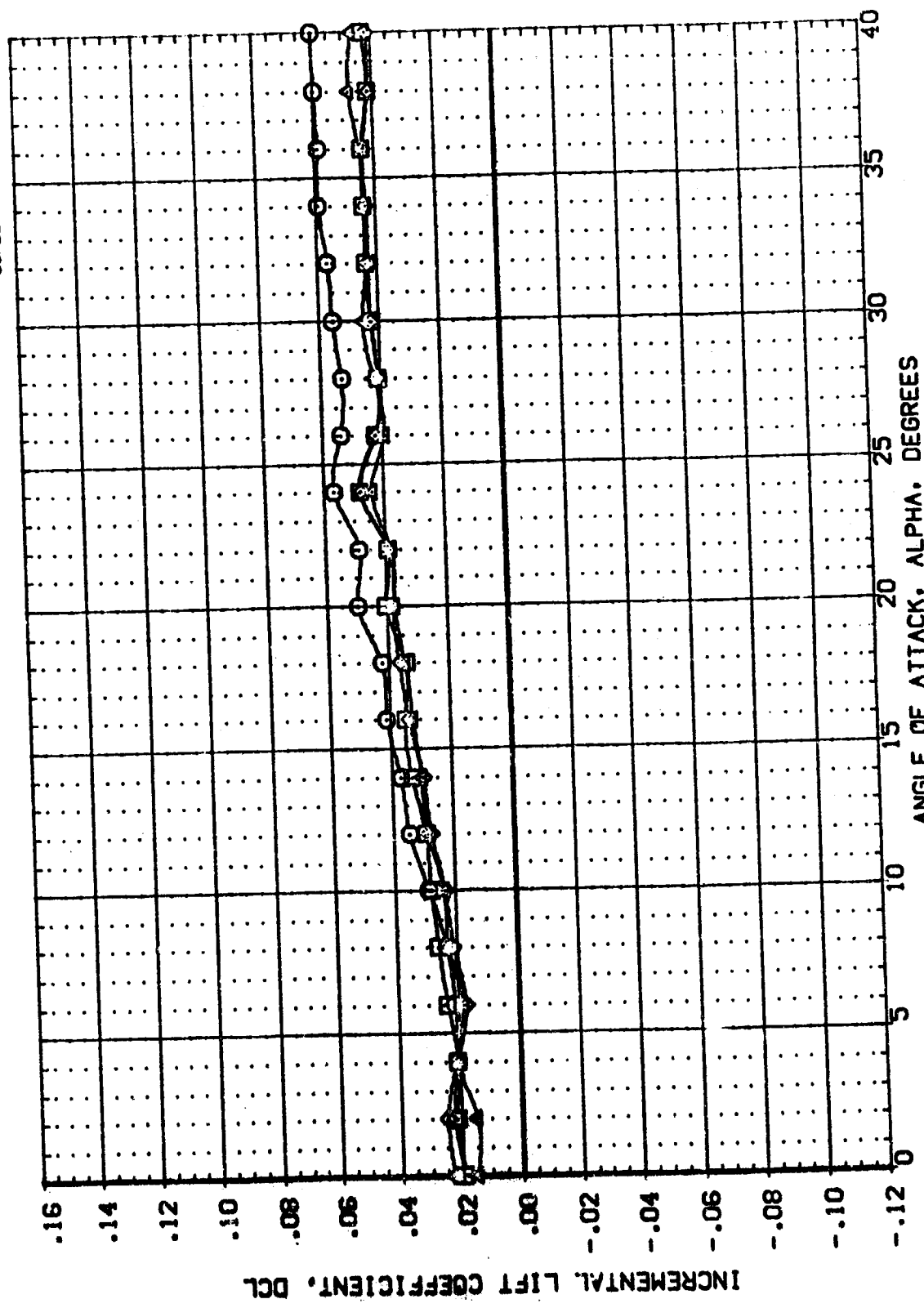


FIG. 38 INCREMENTAL EFFECT DUE TO TRIMMER FOR ORBITER 139B
(F)MACH = 4.96



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	SPOBWK	BDFLAP	REFERENCE INFORMATION
(087585)	HSFC 574(OM48) ORB 1398 V/H19	.000	.000	999.990	.000	SREF 2690.0000 SG.FT.
(087581)	HSFC 574(OM48) ORB 1398 V/H20	.000	.000	999.980	.000	LREF 474.8000 IN.
(087580)	DATA NOT AVAILABLE	.000	.000	999.990	.000	BREF 936.7000 IN.
(087583)	HSFC 574(OM48) ORB 1398 V/H23	.000	.000	999.990	.000	XREF 838.0000 IN.
						YREF .0000 IN.
						ZREF .0000 IN.
						SCALE .0040

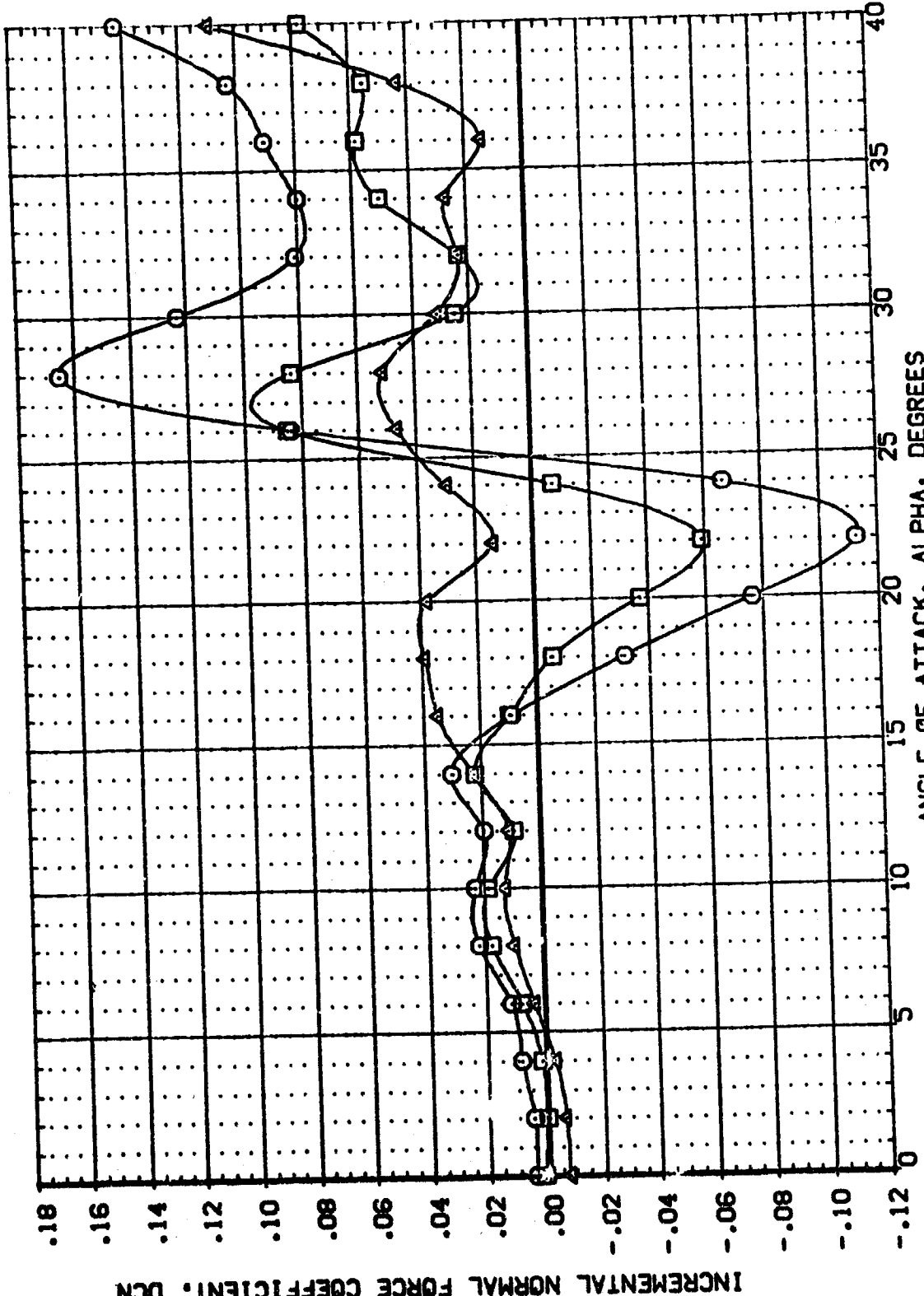


FIG. 38 INCREMENTAL EFFECT DUE TO TRIMMER FOR ORBITER 1398
(A)MACH = .60

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087595) MSFC 574(0448) ORB 1398 V/H19
 (087591) MSFC 574(0448) ORB 1398 V/H20
 (087590) DATA NOT AVAILABLE
 (087593) MSFC 574(0448) ORB 1398 V/H23

BETA .000
 ELEVTR .000
 SPOBRK .000
 BOFLAP .000
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 935.7000 IN.
 XTRP 838.7000 IN.
 YTRP .0000 IN.
 ZTRP .0000 IN.
 SCALE .0040

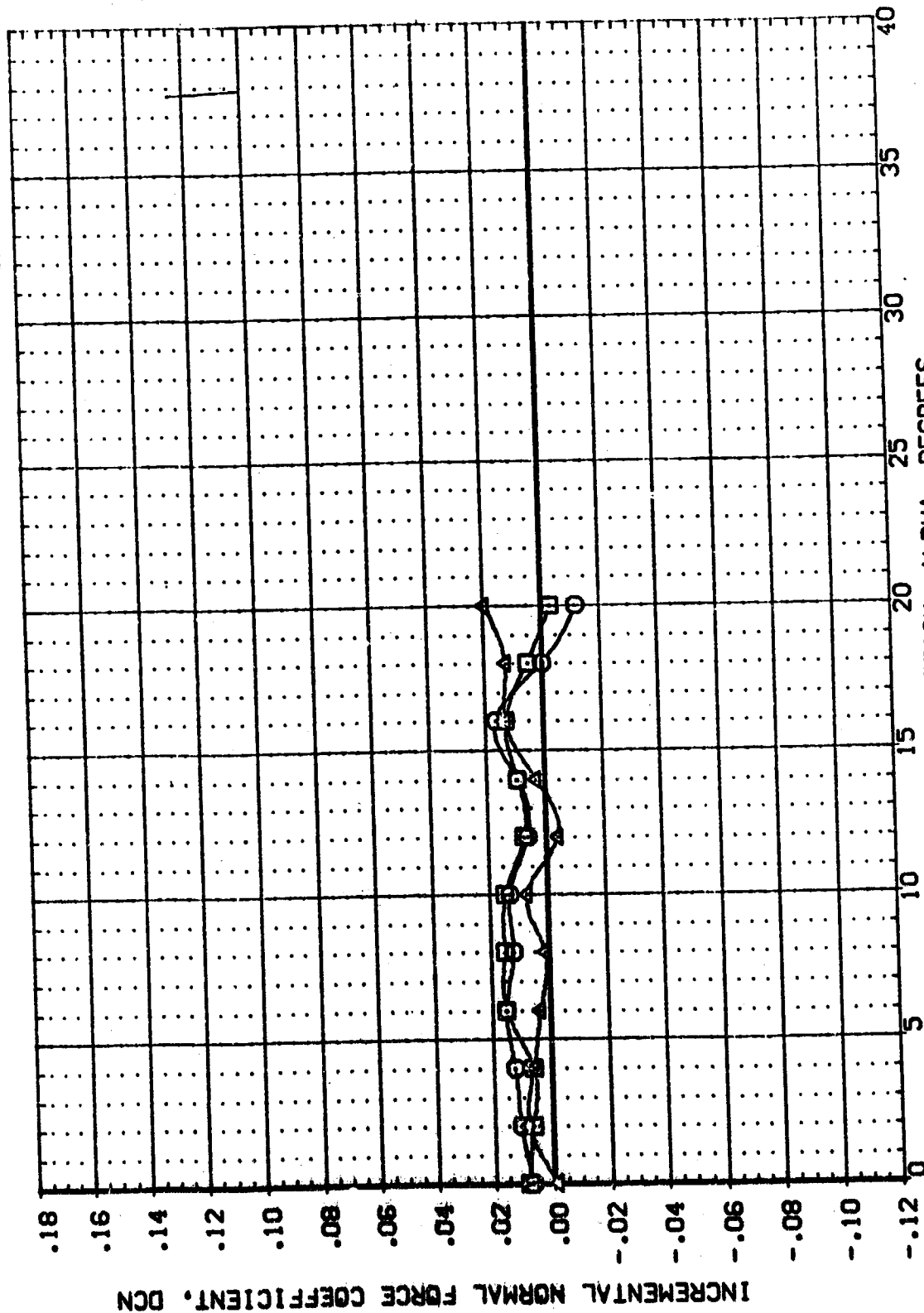


FIG. 38 INCREMENTAL EFFECT DUE TO TRIMME
 (B)MACH = .90

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(087585)	HSTC 574(048) 058 1398 V/H19
(087591)	HSTC 574(048) 058 1398 V/H20
(087590)	DATA NOT AVAILABLE
(087593)	HSTC 574(048) 058 1398 V/H23

BETA .000
ELEVTR .000
SPOBRK .000
BOFLAP .000

REFERENCE INFORMATION

REFERENCE INFORMATION	SO.FT.
SREF	2690.0000
LREF	474.8000
BREF	936.7000
XTRP	838.7000
YTRP	.0000
ZTRP	.0000
SCALE	.0040

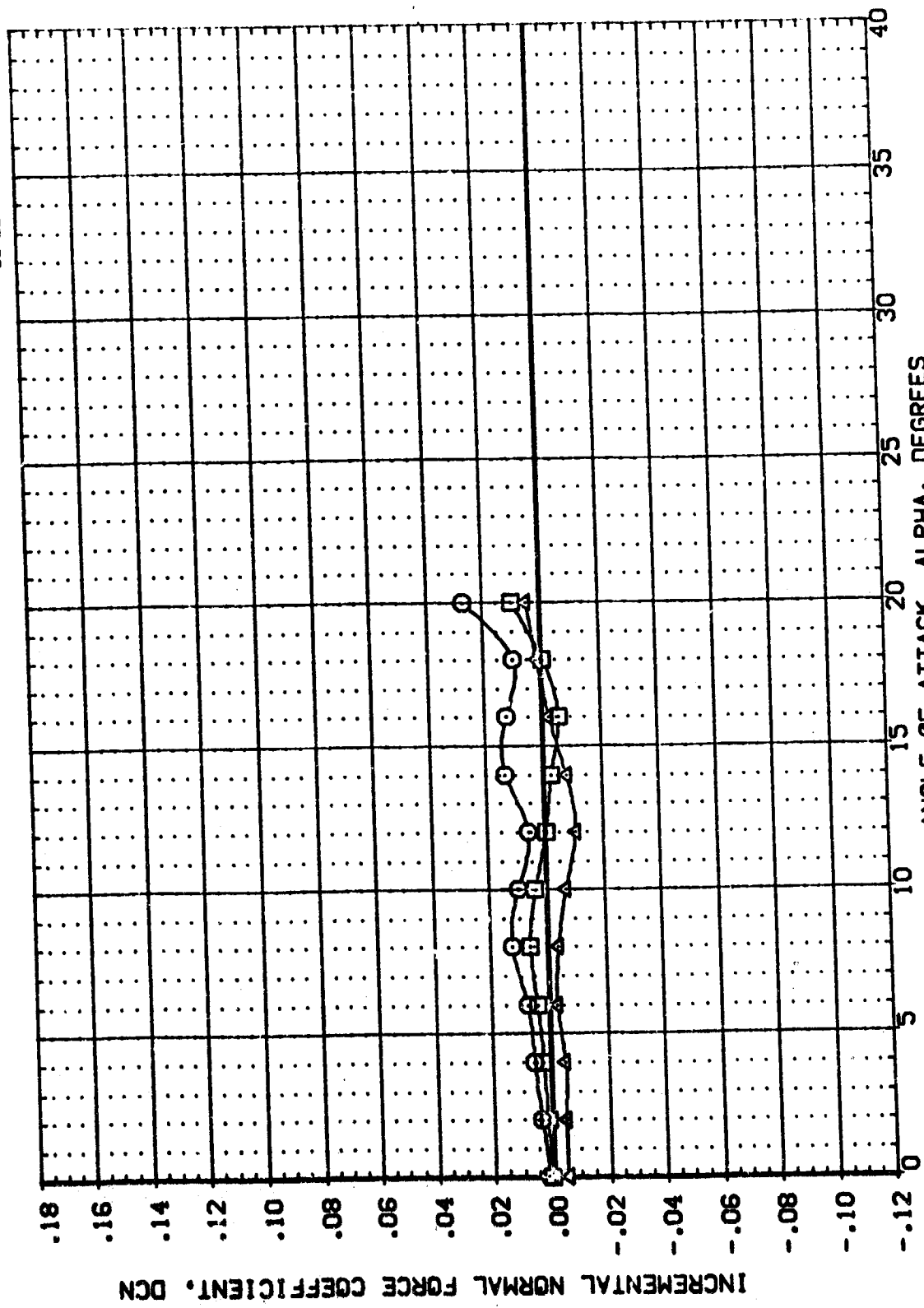


FIG. 38 INCREMENTAL EFFECT DUE TO TRIMMER FOR ORBITER 139B

(C)MACH = 1.20

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087585) MSFC 574(0A48) ORB 1398 V/H19
 (087591) MSFC 574(0A48) ORB 1398 V/H20
 (087593) DATA NOT AVAILABLE
 (087593) DATA NOT AVAILABLE

BETA ELEVTR SPDBRK BOFLAP REFERENCE INFORMATION SQ.FT.
 .000 .000 999.990 .000 SREF 2690.0000 IN.
 .000 .000 999.990 .000 LREF 474.8000 IN.
 .000 .000 999.990 .000 BREF 936.7000 IN.
 .000 .000 999.990 .000 XREF 838.7000 IN.
 .000 .000 999.990 .000 YREF .0000 IN.
 .000 .000 999.990 .000 ZREF .0000 IN.
 .000 .000 999.990 .000 SCALE .0040

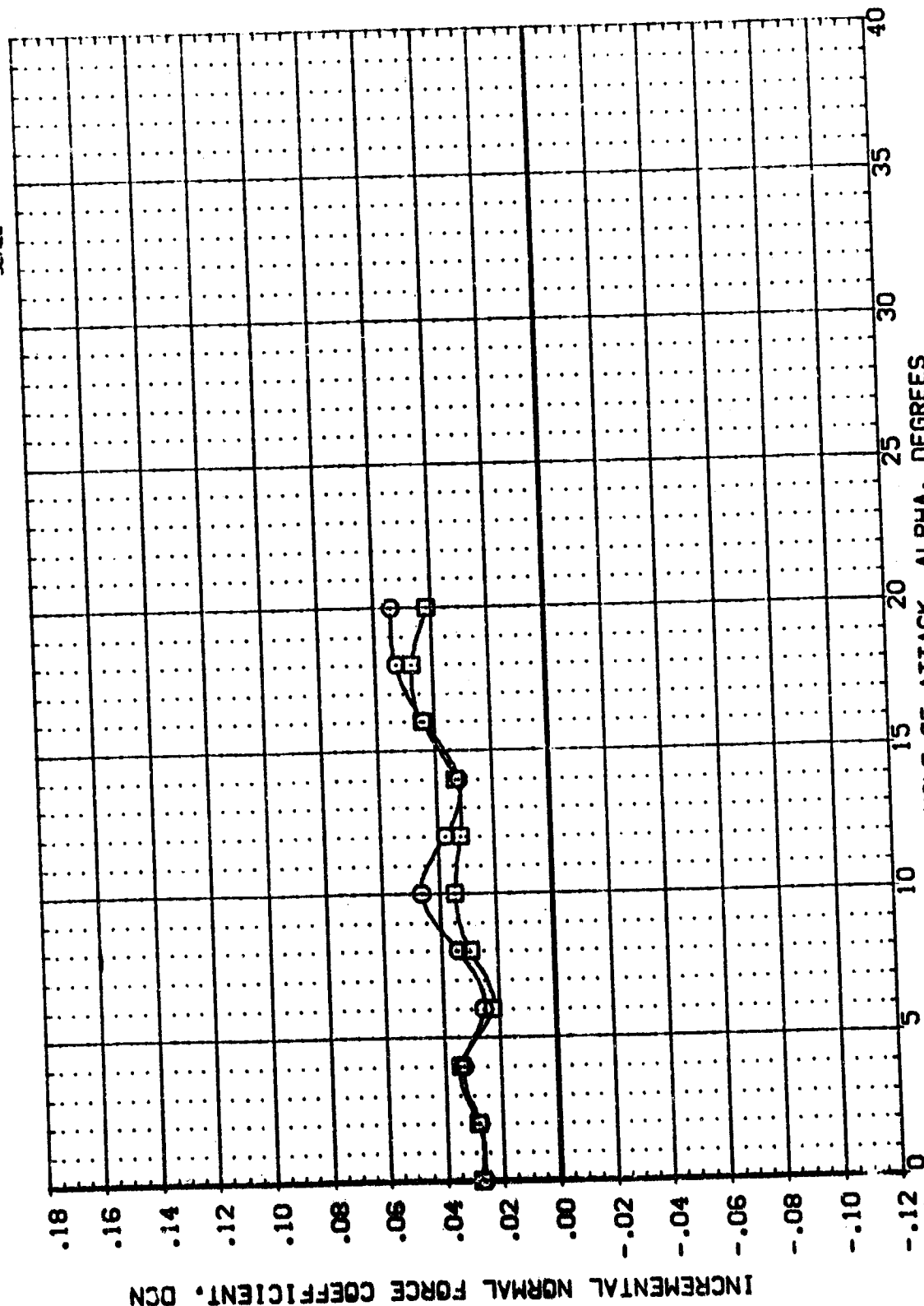


FIG. 38 INCREMENTAL EFFECT DUE TO TRIMMER FOR ORBITER 1398

(D)MACH = 1.96

DATA SET SYMBOL. CONFIGURATION DESCRIPTION

(087985) NSFC 574(0A48) ORB 1398 V/H19

(087991) NSFC 574(0A48) ORB 1398 V/H20

(087993) NSFC 574(0A48) ORB 1398 V/H22

(087995) NSFC 574(0A48) ORB 1398 V/H23

BETA .000

ELEVTR .000

SPORK 999.990

BOFLAP .000

REFERENCE INFORMATION

SREF 2690.0009 SQ. FT.

LREF 474.8000 IN.

BREF 936.7000 IN.

XREF 838.0000 IN.

YREF .0000 IN.

ZREF .0000 IN.

SCALE .0010

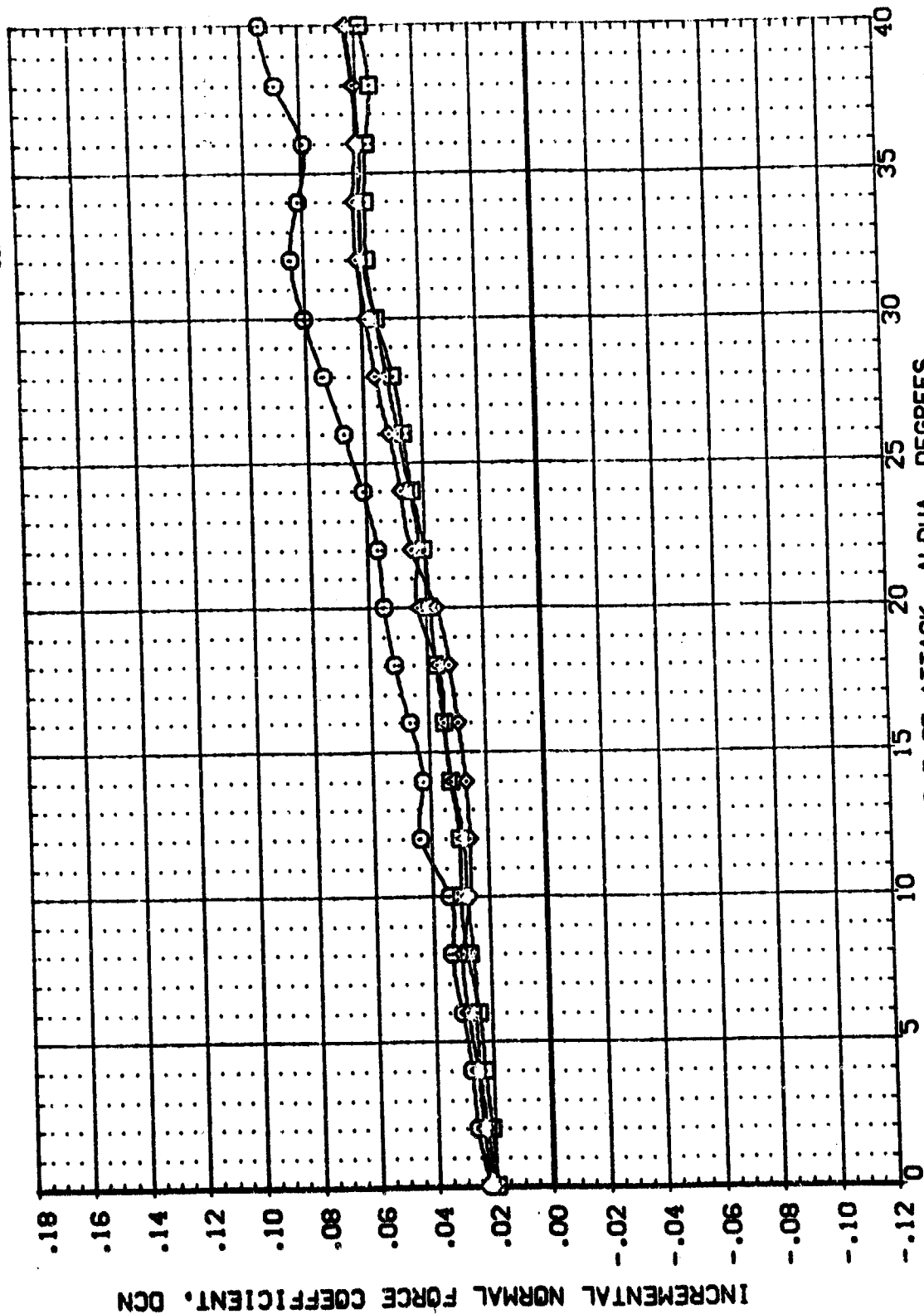


FIG. 38 INCREMENTAL EFFECT DUE TO TRIMMER FOR ORBITER 1398

(E)MACH = 2.99

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	SPOBRK	BOFLAP	REFERENCE INFORMATION
(087595)	MSFC 574(0A48) 088 1398 V/H19	.000	.000	999.990	.000	SREF 2650.0000 50.FT.
(087591)	MSFC 574(0A48) 088 1398 V/H20	.000	.000	999.990	.000	LREF 474.8000 IN.
(087590)	MSFC 574(0A48) 088 1398 V/H22	.000	.000	999.990	.000	BREF 936.7000 IN.
(087593)	MSFC 574(0A48) 088 1398 V/H23	.000	.000	999.990	.000	XREF 838.7000 IN.
						YREF 0.0000 IN.
						ZREF 0.0000 IN.
						SCALE .0040

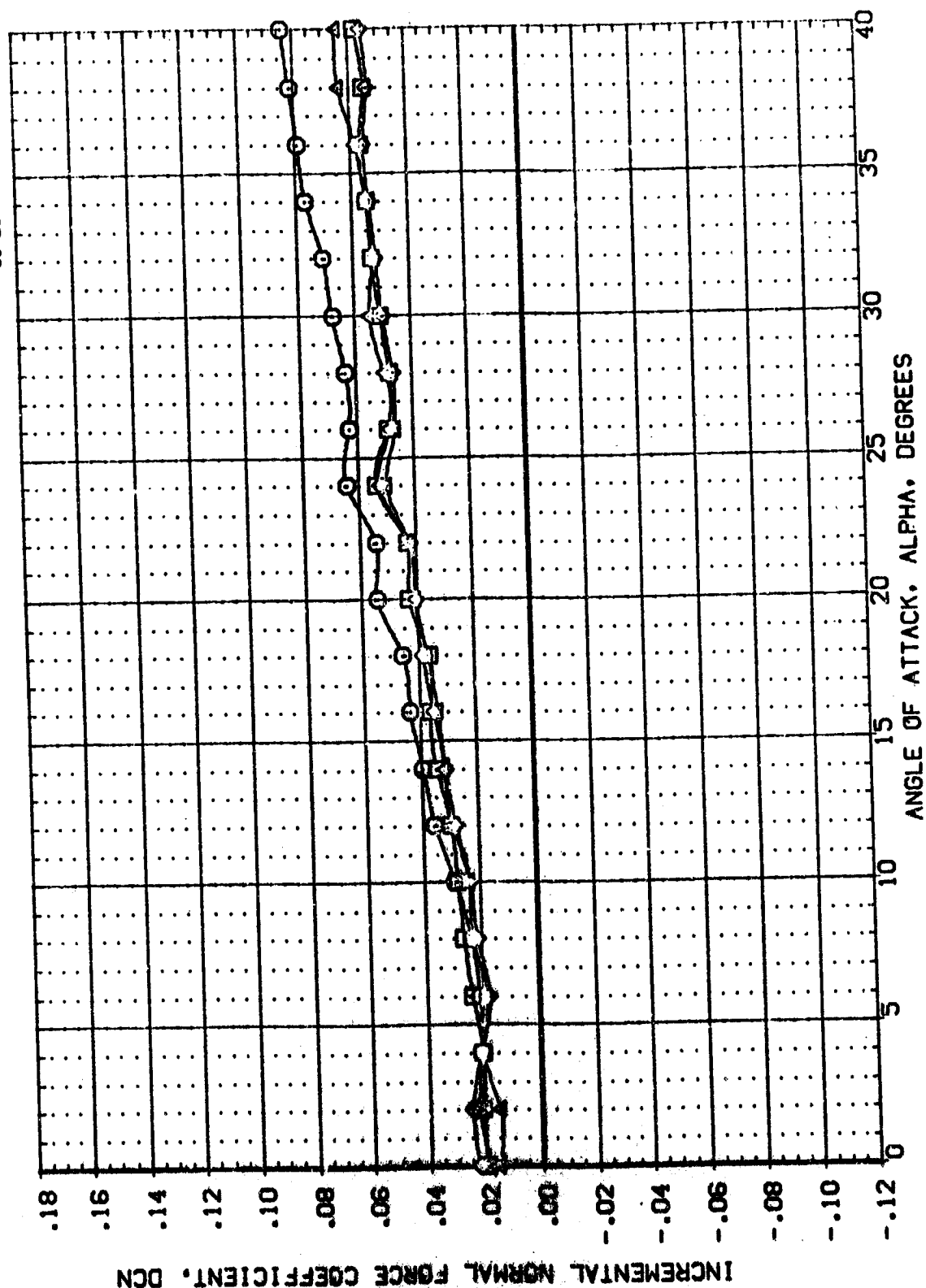


FIG. 38 INCREMENTAL EFFECT DUE TO TRIMMER FOR ORBITER 139B

(F)MACH = 4.96

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087586) H5FC 574(0A48) CRB 1398 V/H19
 (087581) H5FC 574(0A48) CRB 1398 V/H20
 (087500) DATA NOT AVAILABLE
 (087593) H5FC 574(0A48) CRB 1398 V/H23

BETA ELEVTR SPORBK BOFLAP REFERENCE INFORMATION SQ.FT.
 .000 .000 999.990 .000 SREF 2690.0000 IN.
 .000 .000 999.990 .000 LREF 474.8000 IN.
 .000 .000 999.990 .000 BREF 936.7000 IN.
 .000 .000 999.990 .000 XREF 838.7000 IN.
 .000 .000 999.990 .000 YREF .0000 IN.
 .000 .000 999.990 .000 ZREF .0000 IN.
 .000 .000 999.990 .000 SCALE .0040

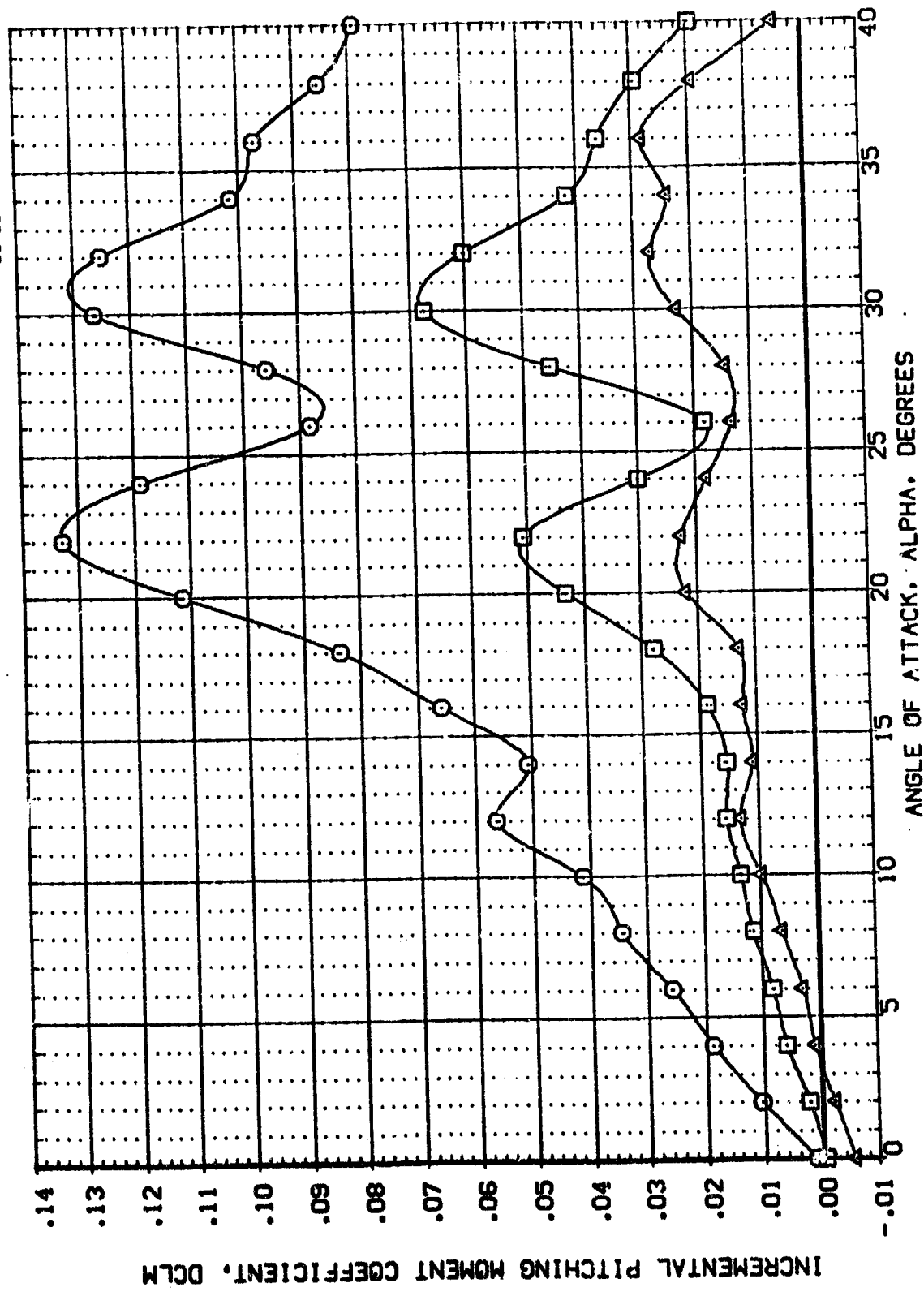


FIG. 38 INCREMENTAL EFFECT DUE TO TRIMMER FOR ORBITER 139B

(A)MACH = .60

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	SPOBRK	BOFLAP	REFERENCE INFORMATION
(087585)	MSFC 574(048) 088 1398 V/H19	.000	.000	999.990	.000	SREF 2690.0000 SQ.FT.
(087591)	MSFC 574(048) 088 1398 V/H20	.000	.000	999.990	.000	LREF 474.8000 IN.
(087593)	DATA NOT AVAILABLE	.000	.000	999.990	.000	BREF 936.7000 IN.
	MSFC 574(048) 088 1398 V/H23	.000	.000	999.990	.000	XREF 838.7000 IN.
						YREF .0000 IN.
						ZREF .0040 IN.
						SCALE

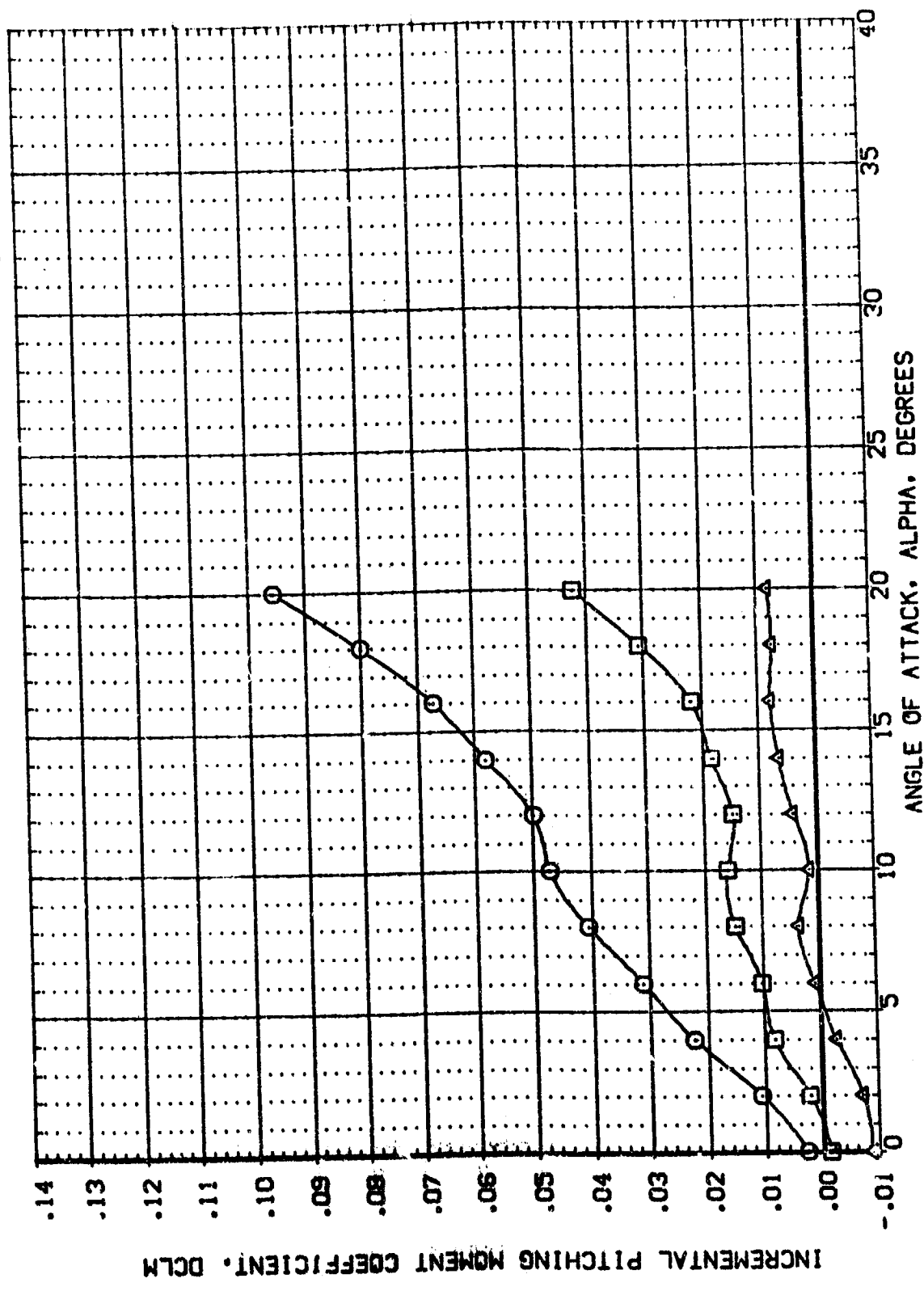
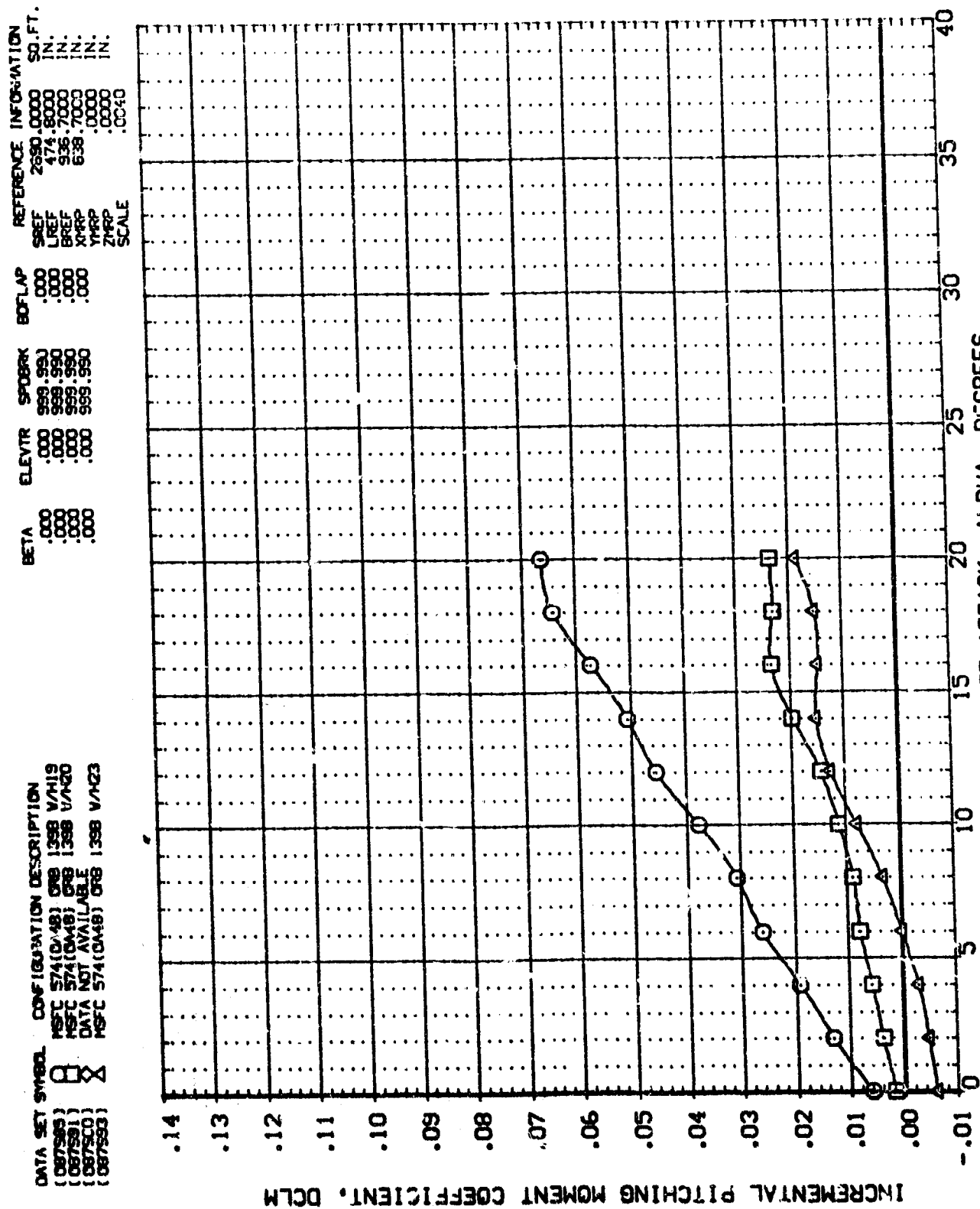


FIG. 38 INCREMENTAL EFFECT DUE TO TRIMMER FOR ORBITER 139B

(B)MACH = .90



DATA SET SYMBOL: (087585) (087581) (087580) (087583)

CONFIGURATION DESCRIPTION: MSFC 574(0A48) LRB 1398 V/MH² MSFC 574(0A48) CRB 1328 V²/O DATA NOT AVAILABLE DATA NOT AVAILABLE

BETA: .000 .000 .000 .000

ELEVTR: .000 .000 .000 .000

SPOBRK: 999.990 999.990 999.990 999.990

80FLAP: .000 .000 .000 .000

REFERENCE INFORMATION: SREF 2690.0000 SO.FT. LREF 474.8000 IN. BREF 936.7000 IN. XREF 838.7000 IN. YREF .0000 IN. ZREF .0000 IN. SCALE .0010

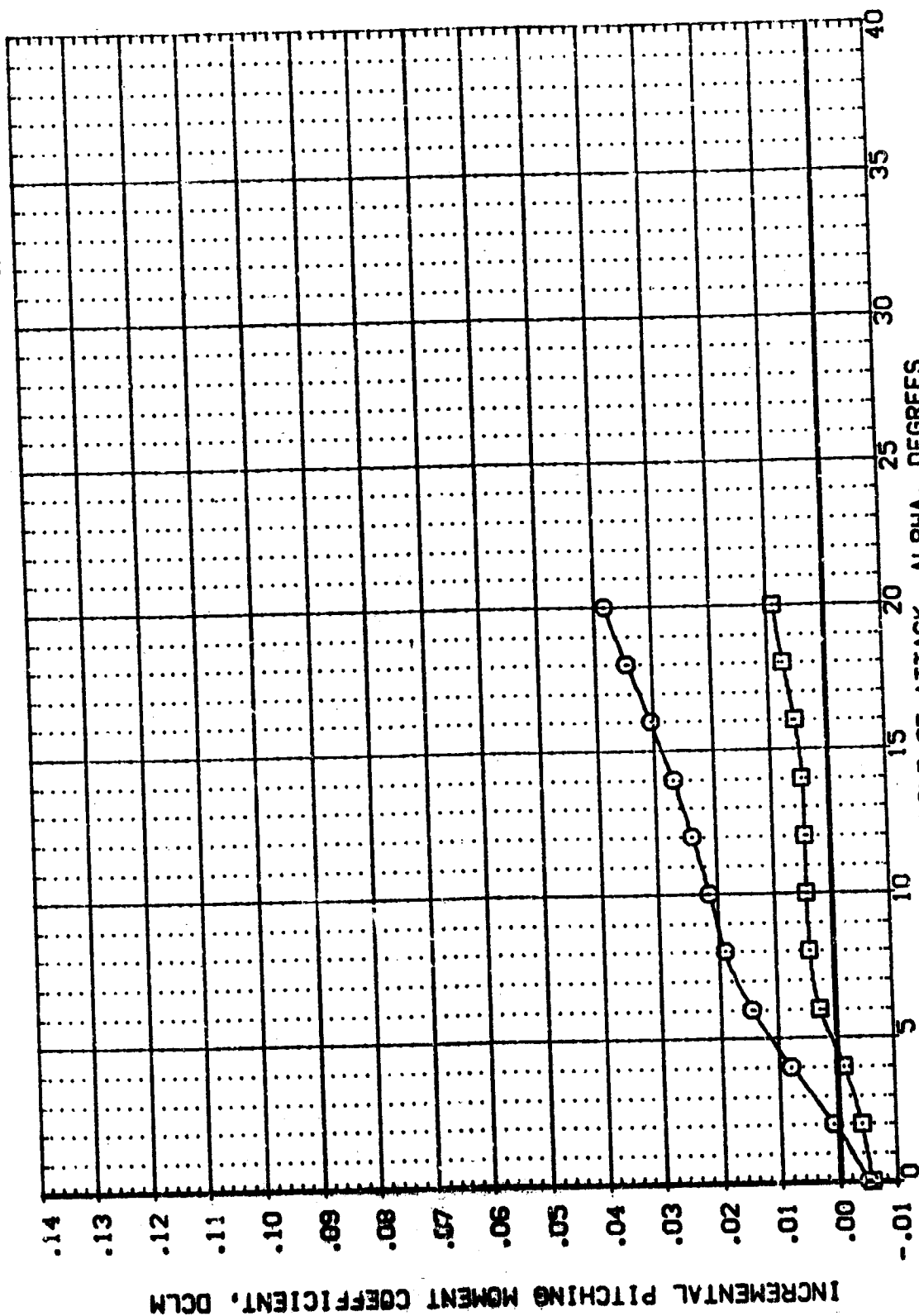






FIG. 38 INCREMENTAL EFFECT DUE TO TRIMMER FOR ORBITER 1398
(D)MACH = 1.96

DATA SET SYMBOL:     CONFIGURATION DESCRIPTION: HSPC 574(OM48) ORB 1398 V/H19 (087585) HSPC 574(OM48) ORB 1398 V/H20 (087591) HSPC 574(OM48) ORB 1398 V/H22 (087500) HSPC 574(OM48) ORB 1398 V/H23 (087593)

BETA: .000
.000
.000
.000

ELEVTR: .000
.000
.000
.700

SPDRK: .000
.000
.000
.000

BDFLAP: .000
.000
.000
.000

REFERENCE INFORMATION: SREF 2890.0000 59.0000 IN.
LREF 474.0000 IN.
BREF 938.7000 IN.
XPRP 838.0000 IN.
YPRP .0000 IN.
ZPRP .0000 IN.
SCALE .0040

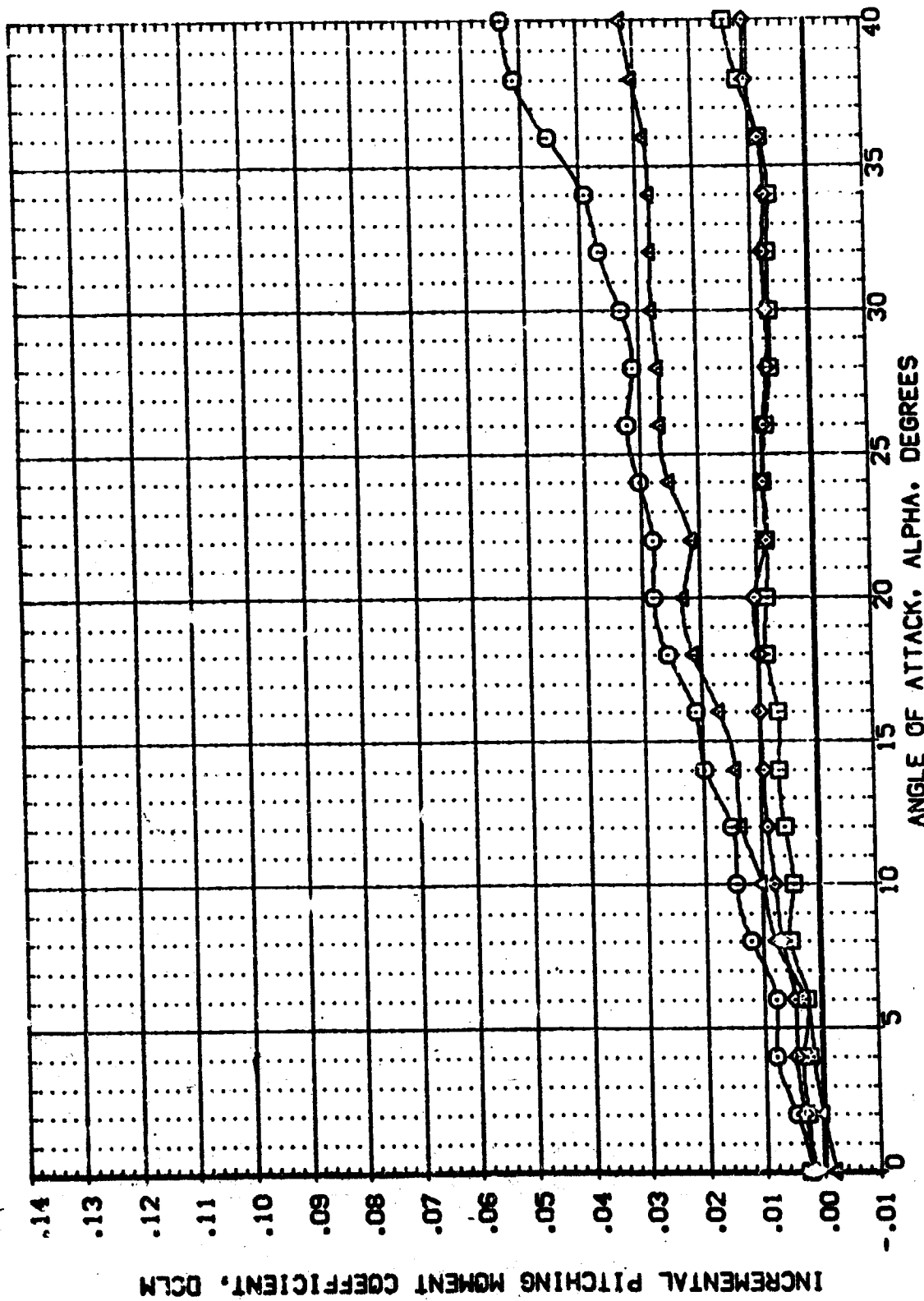


FIG. 38 INCREMENTAL EFFECT DUE TO TRIMMER FOR ORBITER 139B

(E)MACH = 2.99

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	SPDRBK	BOFLAP	REFERENCE INFORMATION
(087585)	MSFC 574(048) 058 1358 V419	.000	.000	558.550	.000	SNCF 2650.0000
(087581)	MSFC 574(048) 058 1358 V420	.000	.000	558.550	.000	LINEF 474.8000
(087580)	MSFC 574(048) 058 1358 V422	.000	.000	558.550	.000	BRNF 936.7000
(087583)	MSFC 574(048) 058 1358 V423	.000	.000	558.550	.000	XNPF 838.0000
						YNPF .0000
						ZNPF .0000
						SCALE .0040

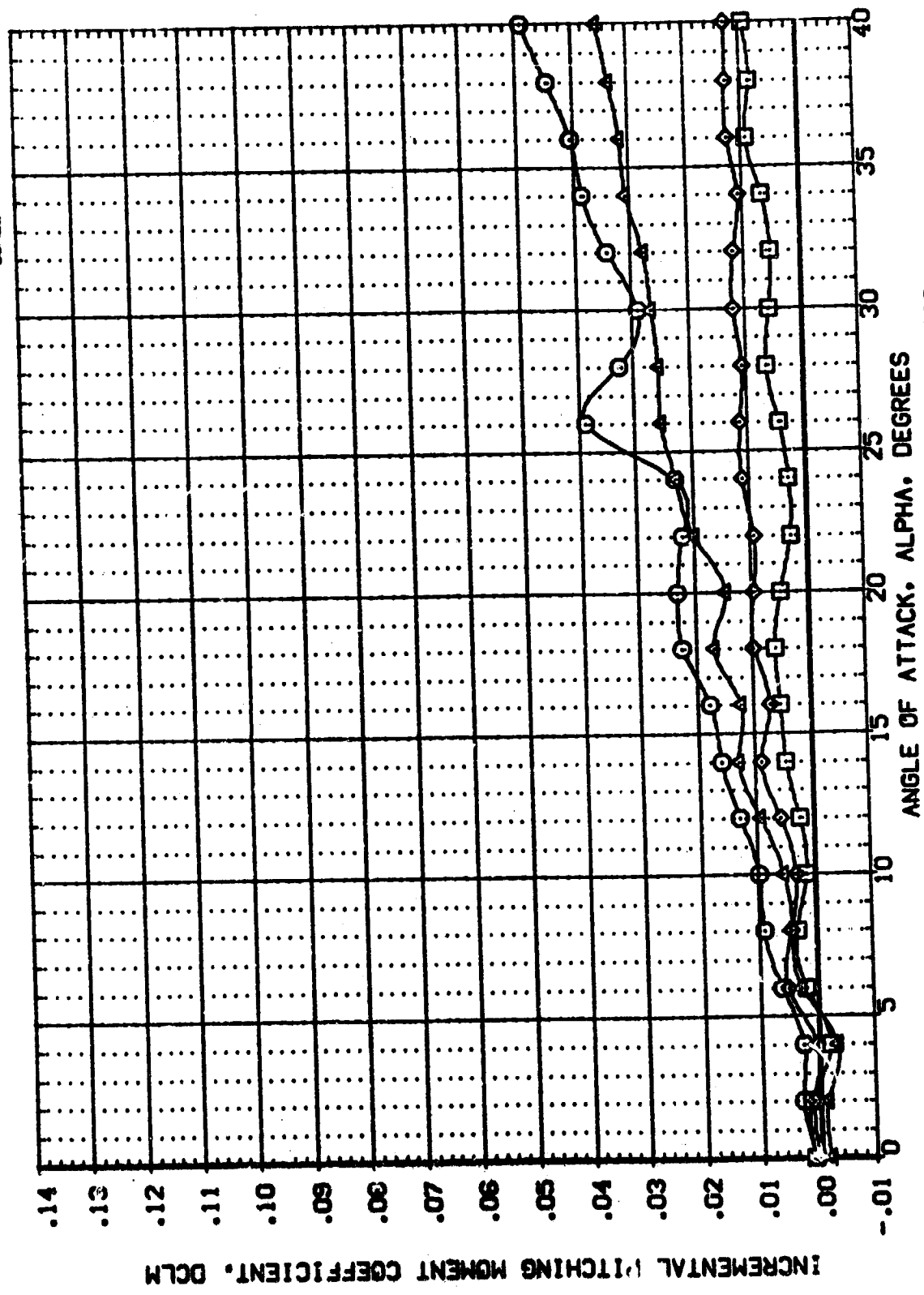


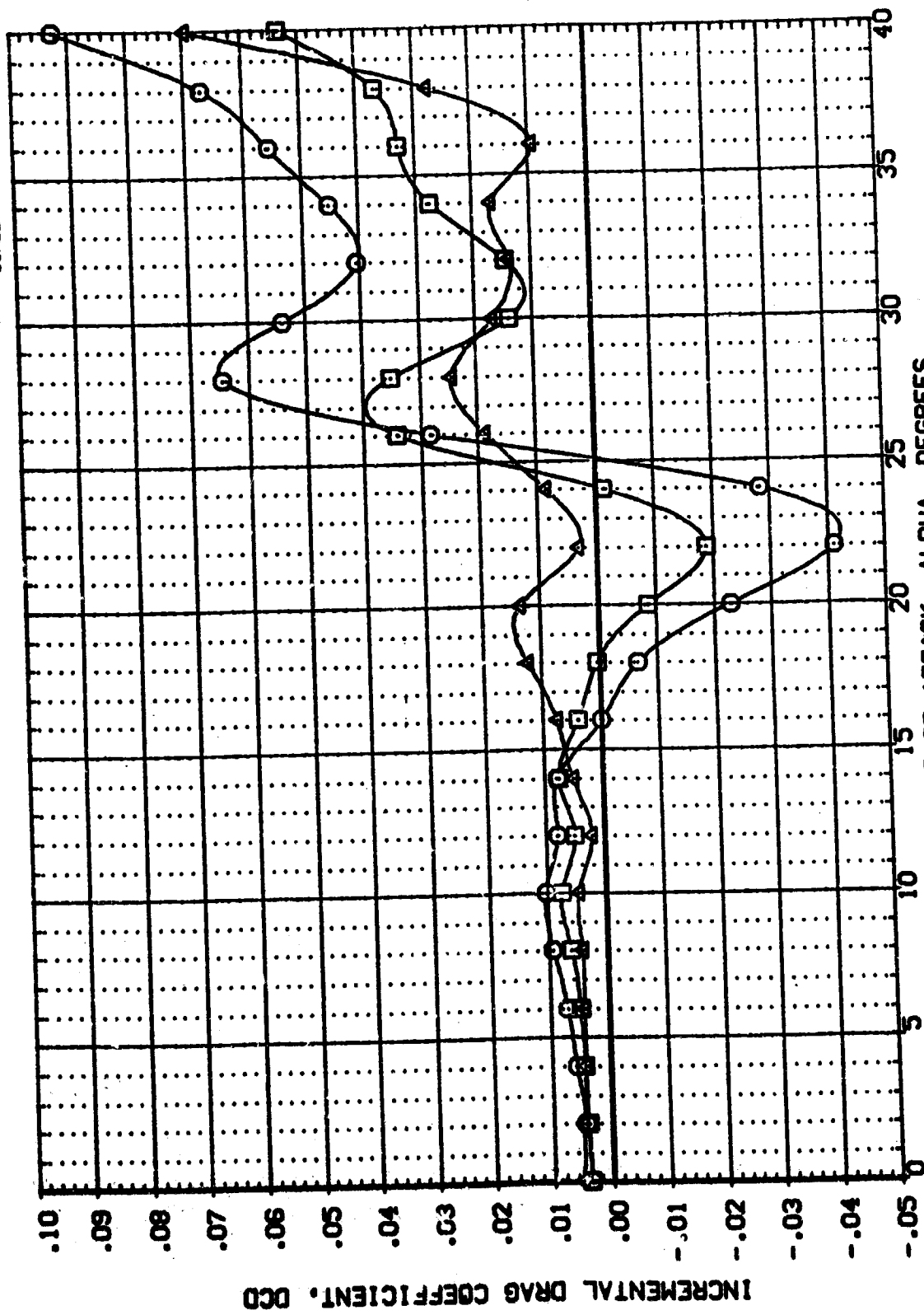
FIG. 38 INCREMENTAL EFFECT DUE TO TRIMMER FOR ORBITER 139B

(F)MACH = 4.96

DATA SET SYMBOL: REFERENCE INFORMATION
 (007000) REF 240.0000 - 90. FT.
 (007001) LREF 474.8000 IN.
 (007002) BREF 538.7000 IN.
 (007003) XREF 808.7000 IN.
 (007004) YREF 0.0000 IN.
 (007005) ZREF 0.0000 IN.
 (007006) SCALE 0.0040

BETA ELEVTR SPORK EDLAP
 .000 .000 .000 .000
 .000 .000 .000 .000
 .000 .000 .000 .000
 .000 .000 .000 .000

CONFIGURATION DESCRIPTION
 REF 574(048) ORB 1398 V/HIS
 REF 574(048) ORB 1398 V/HIS
 DATA NOT AVAILABLE
 REF 574(048) ORB 1398 V/HIS



ANGLE OF ATTACK, ALPHA, DEGREES

FIG. 38 INCREMENTAL EFFECT DUE TO TRIMMER FOR ORBITER 1398

(M)MACH = .60

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087595) MSFC 574(0448) ORB 1398 V/H19
 (087591) MSFC 574(0448) ORB 1398 V/H20
 (087590) DATA NOT AVAILABLE
 (087593) MSFC 574(0448) ORB 1398 V/H23

BETA .000
 .000
 .000
 .000

ELEVTR .000
 .000
 .000
 .000

SPOSBRK .999.990
 .999.990
 .999.990
 .999.990

BOFLAP .000
 .000
 .000
 .000

REFERENCE INFORMATION
 SREF 2690.0000 SU.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XTRP 838.7000 IN.
 YTRP .0000 IN.
 ZTRP .0000 IN.
 SCALE .0010

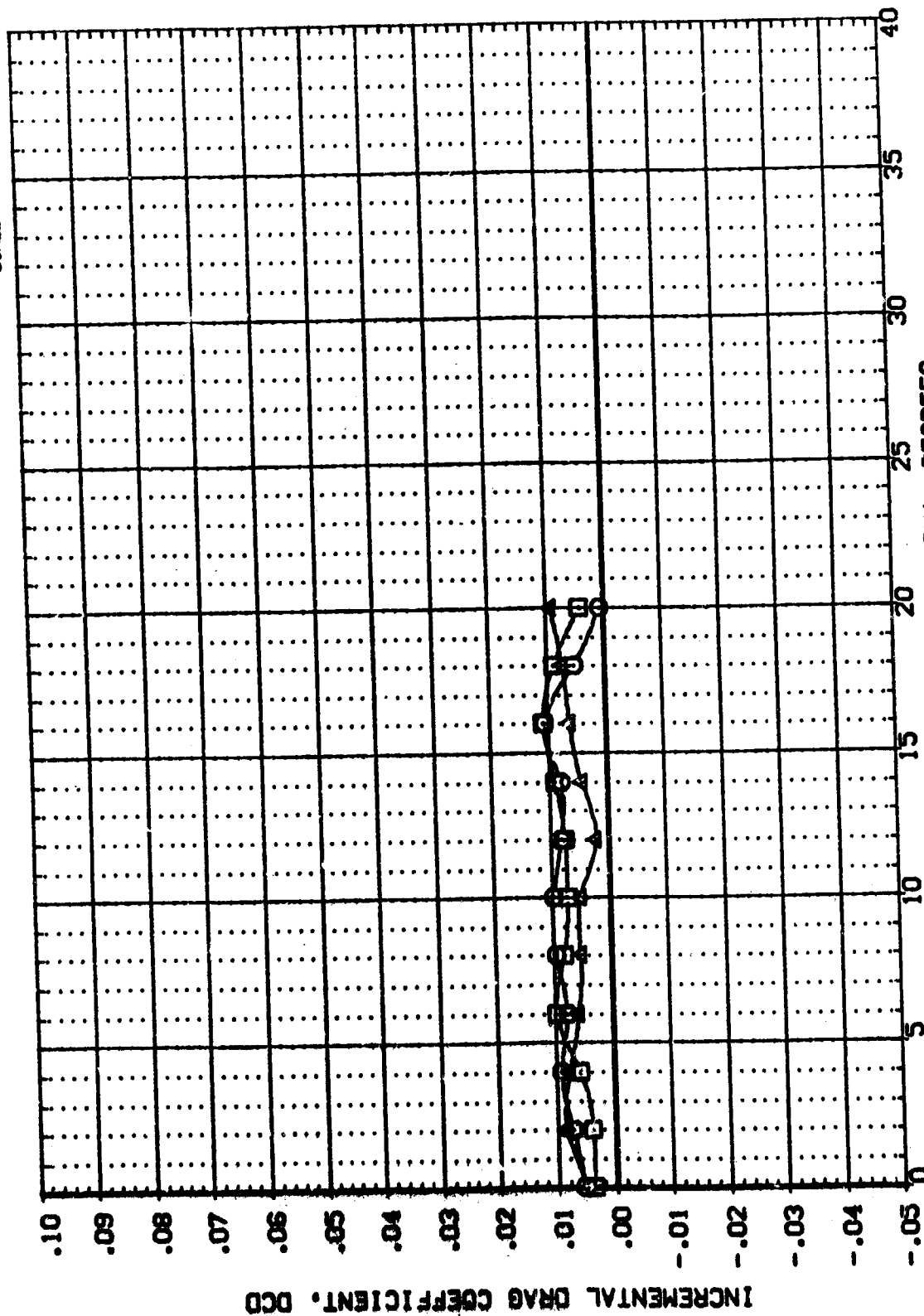


FIG. 38 INCREMENTAL DRAG EFFECT DUE TO TRIMMER FOR ORBITER 1398

(B)MACH = .90



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(087353) MSFC 574(0448) ORB 1398 V418
(087353) MSFC 574(0448) ORB 1398 V420
(087353) DATA NOT AVAILABLE
(087353) MSFC 574(0448) ORB 1398 V423

BETA ELEVTR SPORWK BOFLAP REFERENCE INFORMATION
SO. FT.
SREF 2650.0000 IN.
LREF 474.8000 IN.
BREF 536.7000 IN.
YREF 628.7000 IN.
ZREF .0000 IN.
Z.P. .0000 IN.
SCALE .0040

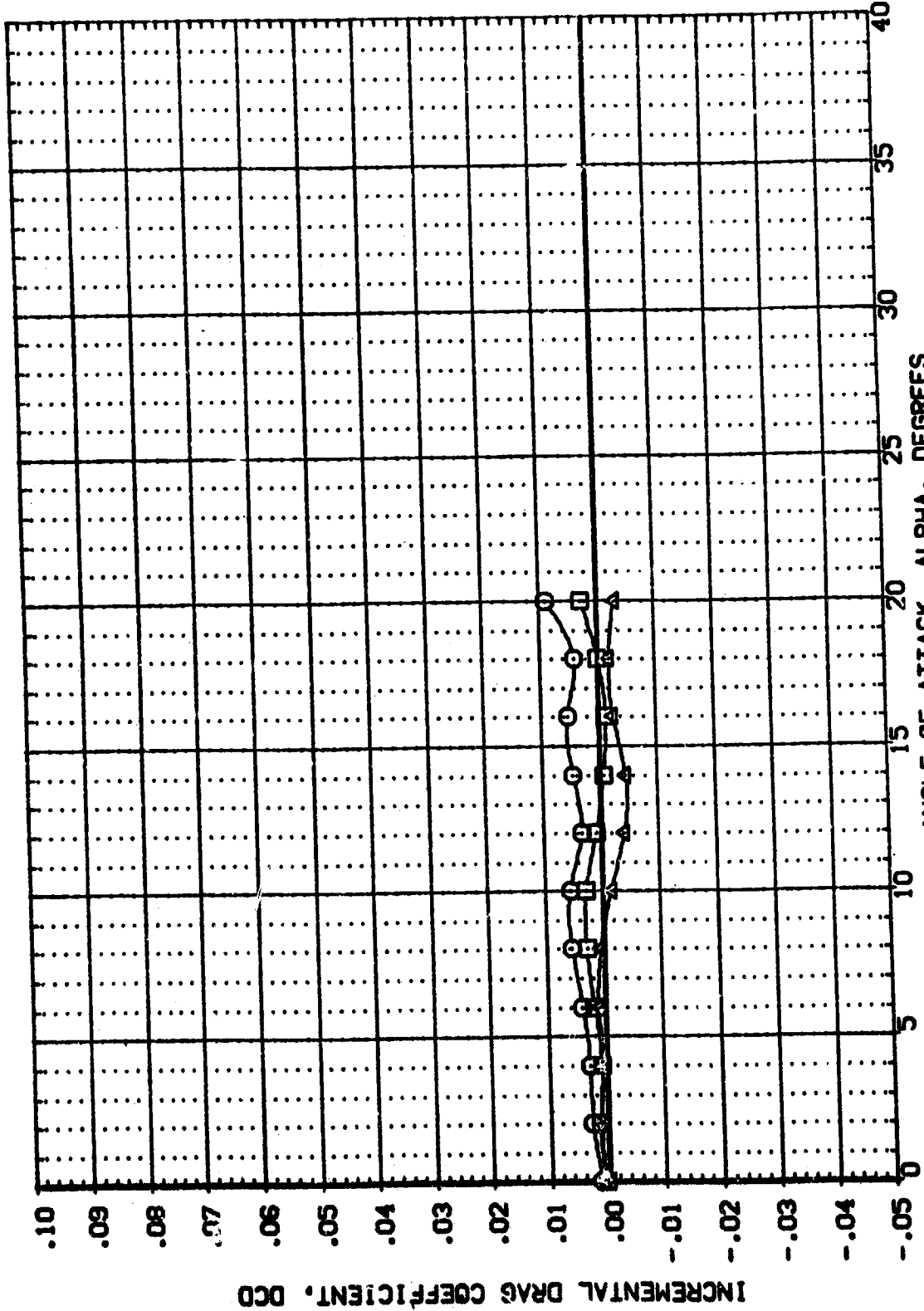


FIG. 38 INCREMENTAL EFFECT DUE TO TRIMMER FOR ORBITER 139B

(C)MACH = 1.20

BETA	ELEVTR	SPOBRK	BOFLAP	REFERENCE INFORMATION	SG.FT.
.000	.000	.999 .990	.000	SPET	2630 .000
.000	.000	.999 .990	.000	LNET	474 .000
.000	.000	.999 .990	.000	SPET	836 .000
.000	.000	.999 .990	.000	XRAY	838 .000
.000	.000	.999 .990	.000	YRAY	.000
.000	.000	.999 .990	.000	ZRAY	.000
.000	.000	.999 .990	.000	SCALE	.000

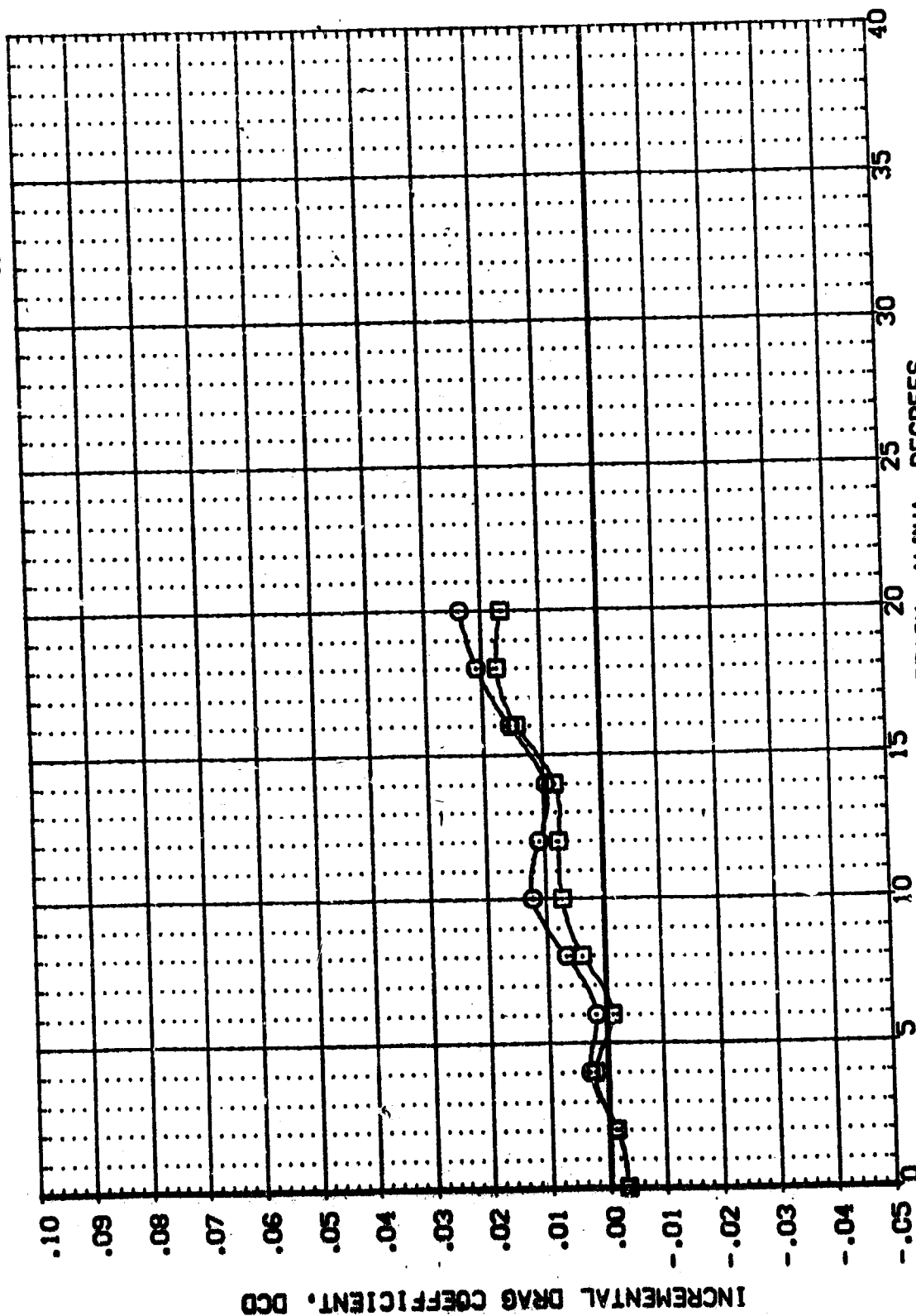


FIG. 38 INCREMENTAL EFFECT DUE TO TRIMMER FOR ORBITER 139B

(D)MACH = 1.95

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087501) HPTC 574(0448) 098 1398 V/H18
 (087502) HPTC 574(0448) 098 1398 V/H20
 (087503) HPTC 574(0448) 098 1398 V/H22
 (087504) HPTC 574(0448) 098 1398 V/H23

BETA .000
 ELEVTR .000
 SPDRK .000
 BOFLAP .000
 REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 YHPP .0000 IN.
 ZHPP .0000 IN.
 SCALE .0040

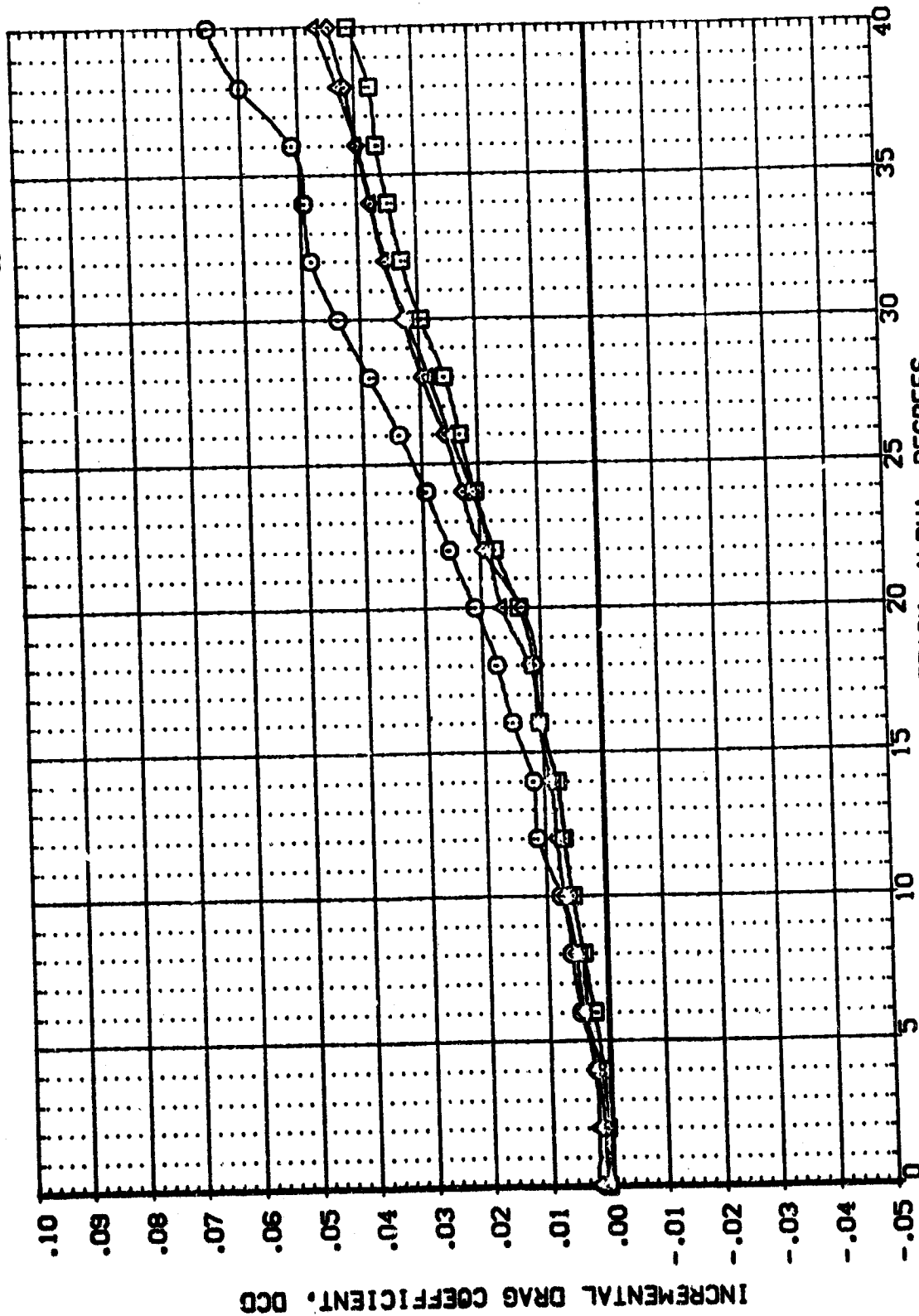


FIG. 38 INCREMENTAL EFFECT DUE TO TRIMMER FOR ORBITER 1398

(C)MACH = 2.99

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(087585)	MSFC 574(0448) 098 1398 V/H19
(087591)	MSFC 574(0448) 098 1398 V/H20
(087592)	MSFC 574(0448) 098 1398 V/H22
(087593)	MSFC 574(0448) 098 1398 V/H23

BETA

.000	ELEVTR	SPDRK	BOFLAP
.000	.000	.000	.000
.000	.000	.000	.000
.000	.000	.000	.000

REFERENCE INFORMATION

SRF	2630.0000	50.FT.
LRF	474.8000	IN.
BRF	536.7000	IN.
YMRP	838.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	

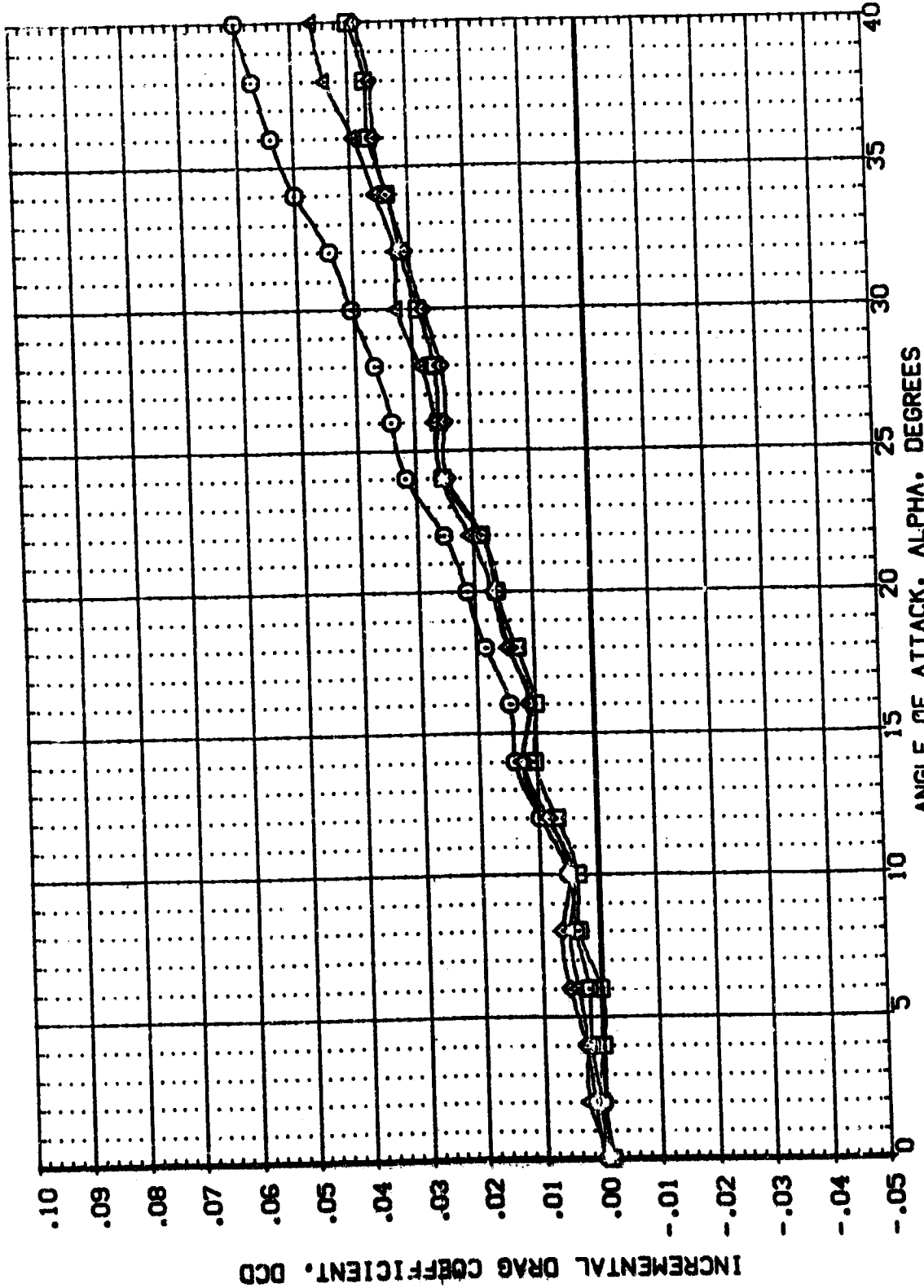


FIG. 38 INCREMENTAL EFFECT DUE TO TRIMMER FOR ORBITER 1398
(F)MACH = 4.96

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(087553) HSFC 574(OH48) ORB 1398 V4H19

(087551) HSFC 574(OH48) ORB 1398 V4H20

(087550) DATA NOT AVAILABLE

(087553) HSFC 574(OH48) ORB 1398 V4H23

BETA ELEVTR SPORBK BDFLAP REFERENCE INFORMATION

.000 .000 .000 .000 SREF 2690.0000 50.FT.

.000 .000 .000 .000 LREF 474.8000 IN.

.000 .000 .000 .000 SREF 935.7000 IN.

.000 .000 .000 .000 XREF 838.7000 IN.

.000 .000 .000 .000 YREF .0000 IN.

.000 .000 .000 .000 ZREF .0000 IN.

SCALE .0040

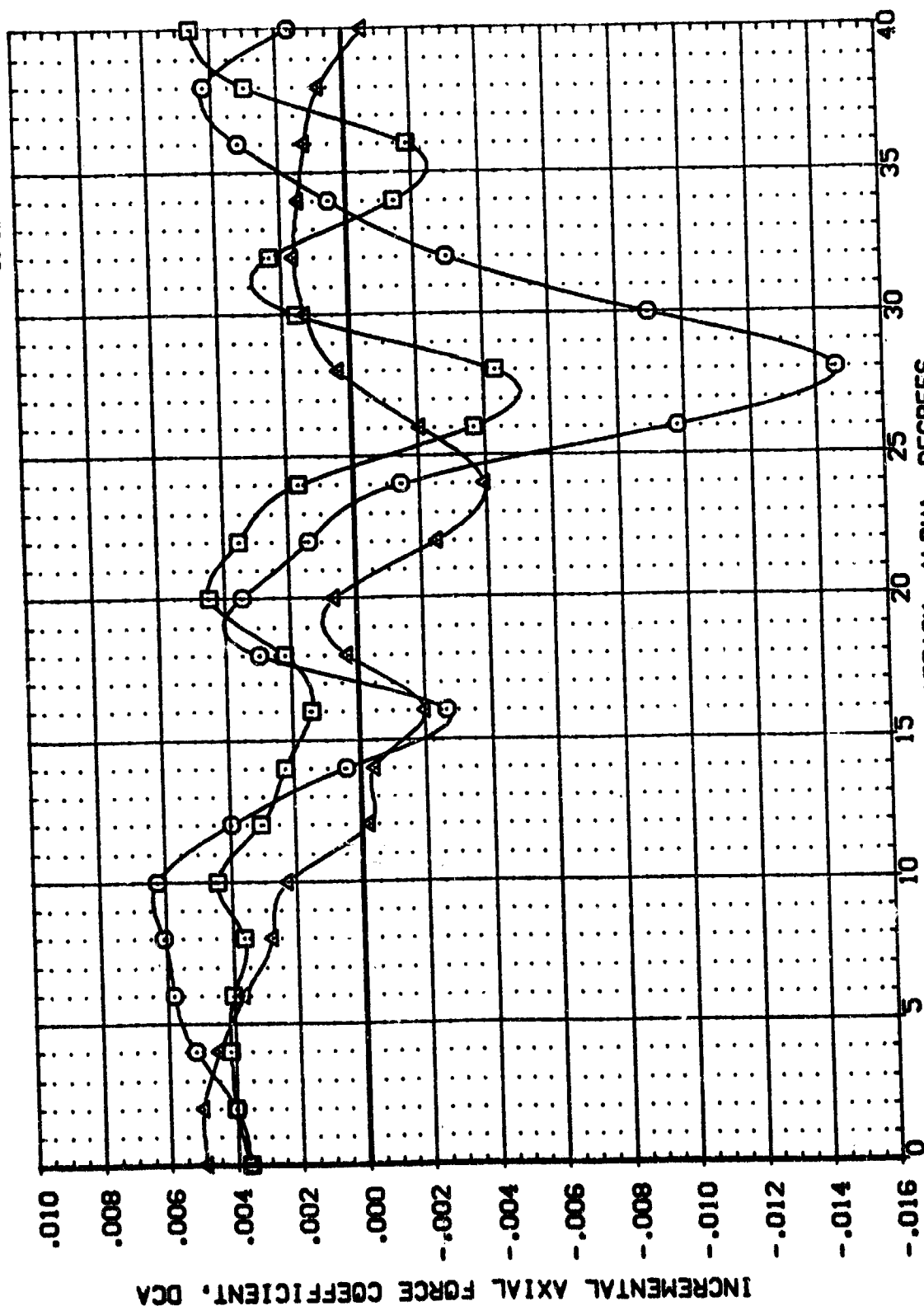


FIG. 38 INCREMENTAL EFFECT DUE TO TRIMMER FOR ORBITER 1398

(A)MACH = .60

BETA	ELEVTR	SPOURK	BOFLAP	REFERENCE	INFORMATION
.000	.000	\$99,990	.000	\$REF	2690.0000
.000	.000	\$99,990	.000	LINE	474.8000
.000	.000	\$99,990	.000	\$REF	936.7000
.000	.000	\$99,990	.000	TRAP	838.7000
.000	.000	\$99,990	.000	TRAP	.0000
.000	.000	\$99,990	.000	TRAP	.0000
.000	.000	\$99,990	.000	SCALE	.0040

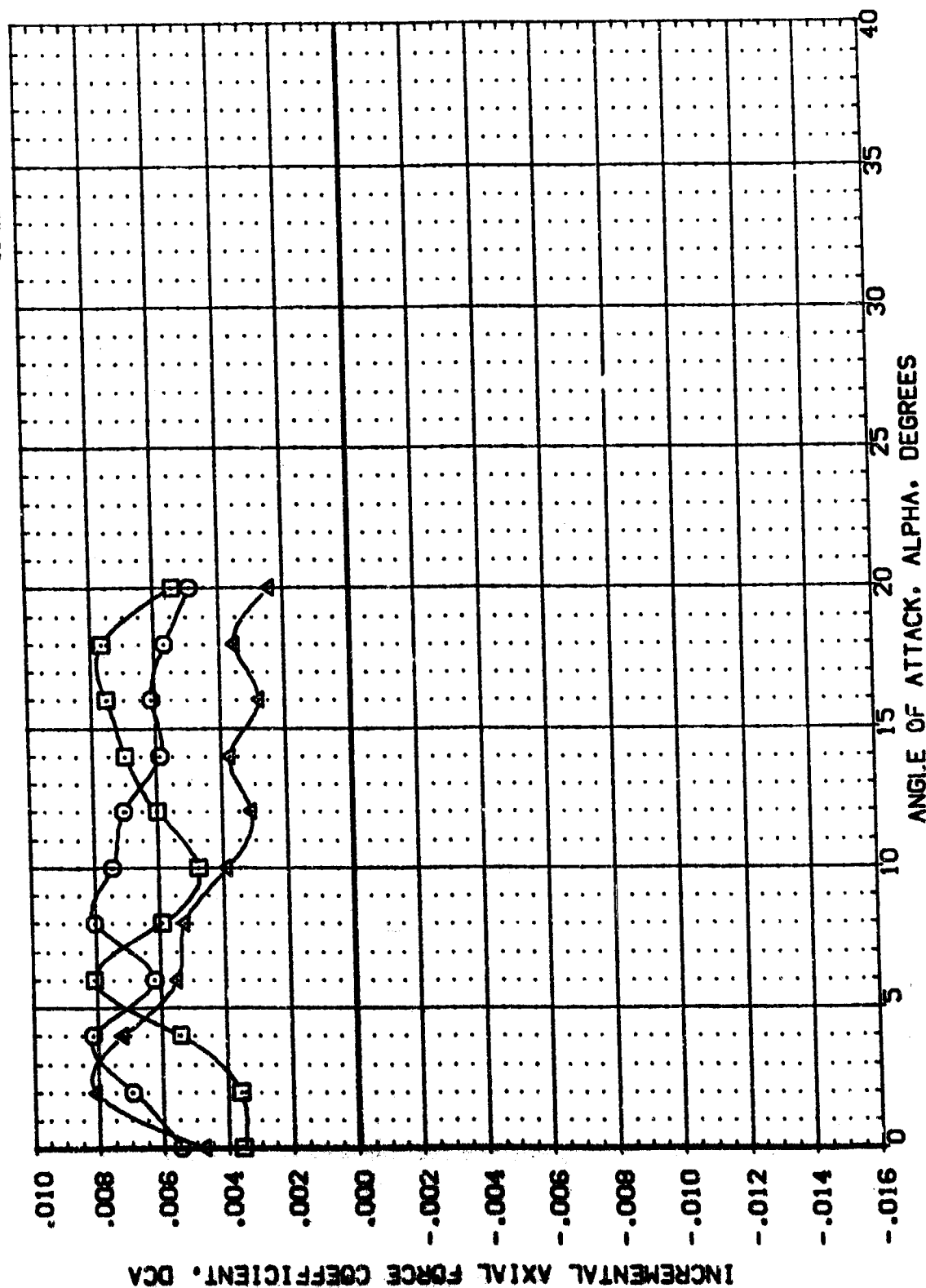


FIG. 38
INCREMENTAL EFFECT DUE TO TRIMMER FOR ORBITER 139B

$$(B)MACH = .90$$

DATA SET SYMBOL: (087585) (087591) (087593) (087593)
 CONFIGURATION DESCRIPTION: MSFC 574(0A48) ORB 1358 V/H19 MSFC 574(0A48) ORB 1358 V/H20 DATA NOT AVAILABLE MSFC 574(0A48) ORB 1358 V/H23

BETA: .000 .000 .000 .000

ELEVTR: .000 .000 .000 .000

SPDRK: .000 .000 .000 .000

BOFLAP: .000 .000 .000 .000

REFERENCE INFORMATION: SREF 2690.0000 SQ.FT. LREF 474.8000 IN. BREF 536.7000 IN. XREF 838.0000 IN. YREF .0000 IN. ZREF .0000 IN. SCALE .0040

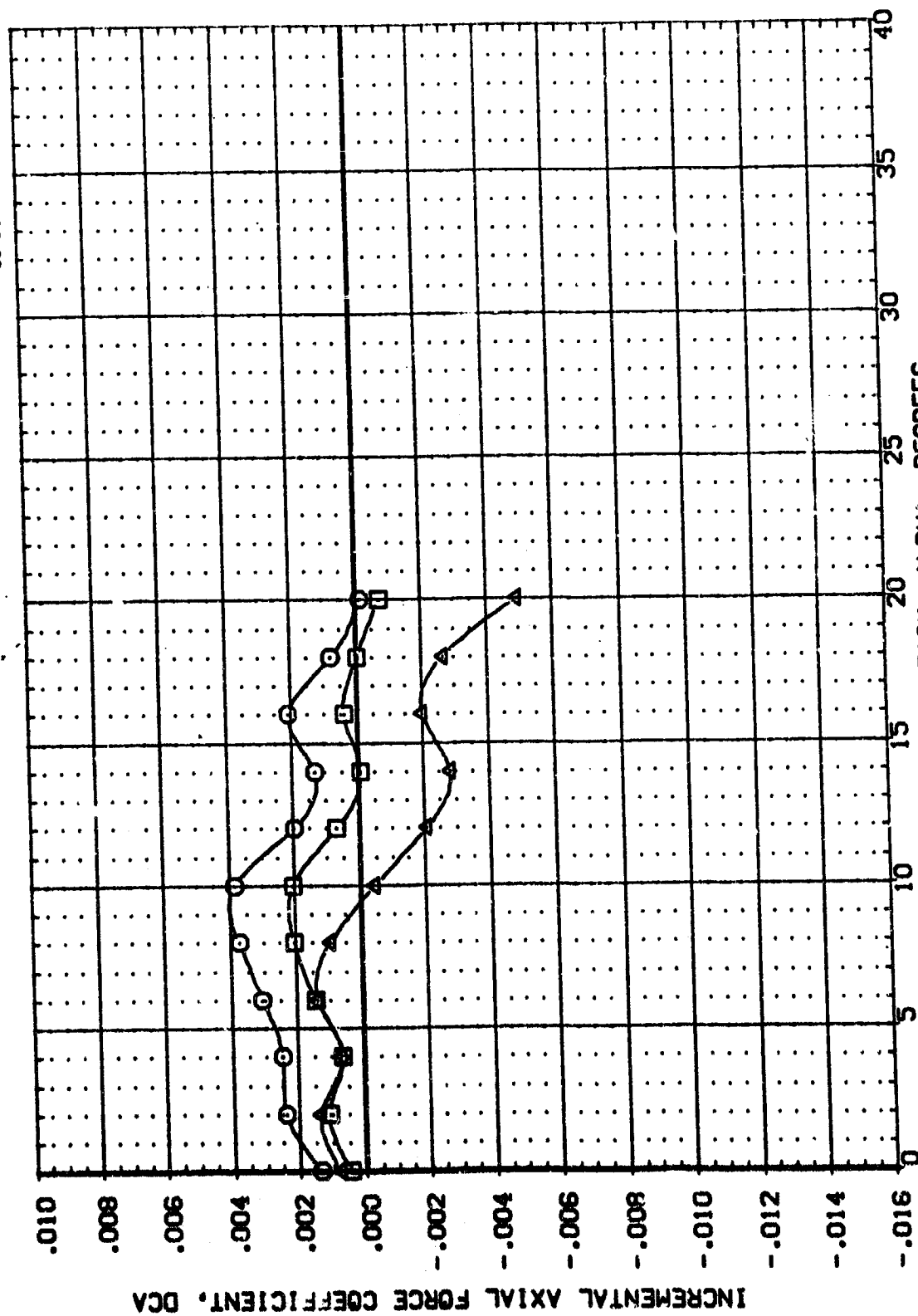


FIG. 38 INCREMENTAL EFFECT DUE TO TRIMMER FOR ORBITER 100B

(C)MACH = 1.20

DATA SET SYMBOL: (087595) (087591) (087590) (087593)

CONFIGURATION DESCRIPTION: MSFC 574(0448) ORS 1398 V/H19 MSFC 574(0448) ORS 1398 V/H20 DATA NOT AVAILABLE DATA NOT AVAILABLE

BETA: .000 .000 .000 .000

ELEVTR: .000 .000 .000 .000

SPOBRK: 999.990 999.990 999.990 999.990

BOFLAP: .000 .000 .000 .000

REFERENCE INFORMATION: SREF 2650.0000 SO.FT. LREF 474.8000 IN. BREF 936.7000 IN. XREF 838.0000 IN. YREF .0000 IN. ZREF .0000 IN. SCALE .0040

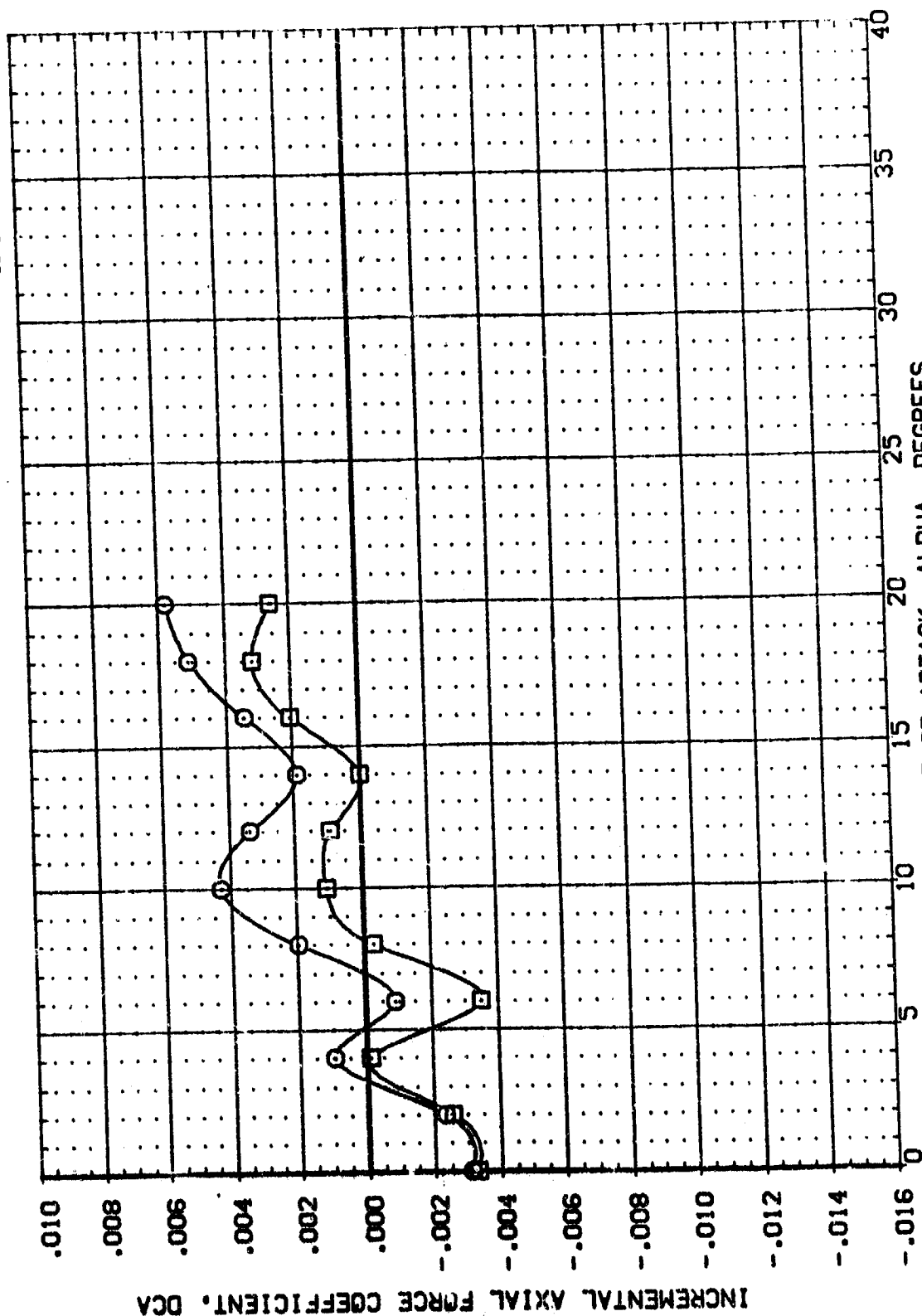


FIG. 38 INCREMENTAL EFFECT DUE TO TRIMMER FOR ORBITER 139B

(D)MACH = 1.95

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(087585) MSC 574(0A48) ORB 1398 V/H19

(087591) MSC 574(0A48) ORB 1398 V/H20

(087593) MSC 574(0A48) ORB 1398 V/H22

(087593) MSC 574(0A48) ORB 1398 V/H23

BE: A ELEVTR SPORRK BOFLAP REFERENCE INFORMATION SQ. FT.

.000 .000 999.990 .000 SREF 2690.0000 IN.

.000 .000 999.990 .000 LREF 174.8000 IN.

.000 .000 999.990 .000 BREF 936.7000 IN.

.000 .000 999.990 .000 XREF 838.7000 IN.

.000 .000 999.990 .000 YREF .0000 IN.

.000 .000 999.990 .000 ZREF .0000 IN.

SCALE .0040

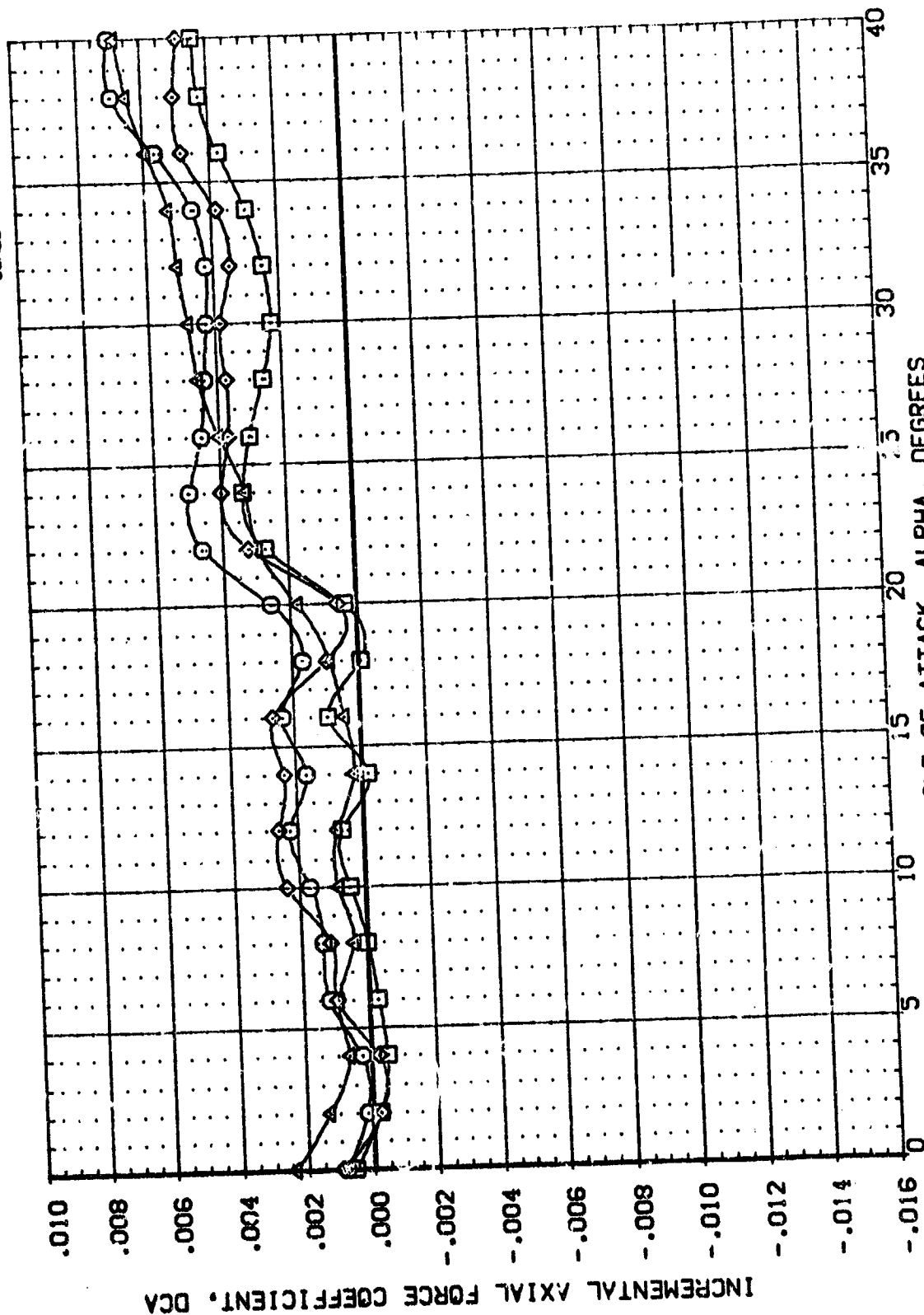


FIG. 38 INCREMENTAL EFFECT DUE TO TRIMMER FOR ORBITER 1398

(E)MACH = 2.99

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	SPOBRK	EDFLAP	REFERENCE INFORMATION
(087585)	MSFC 574(0A48) 000 1398 V/M19	.000	.000	999.990	.000	SREF 2690.0000 SQ.FT.
(087586)	MSFC 574(0A48) 000 1398 V/M20	.000	.000	999.990	.000	LREF 474.8000 IN.
(087587)	MSFC 574(0A48) 000 1398 V/M22	.000	.000	999.990	.000	BREF 936.7000 IN.
(087588)	MSFC 574(0A48) 000 1398 V/M23	.000	.000	999.990	.000	XREF 838.7000 IN.
						YREF .0000 IN.
						ZREF .0000 IN.
						SCALE .0040

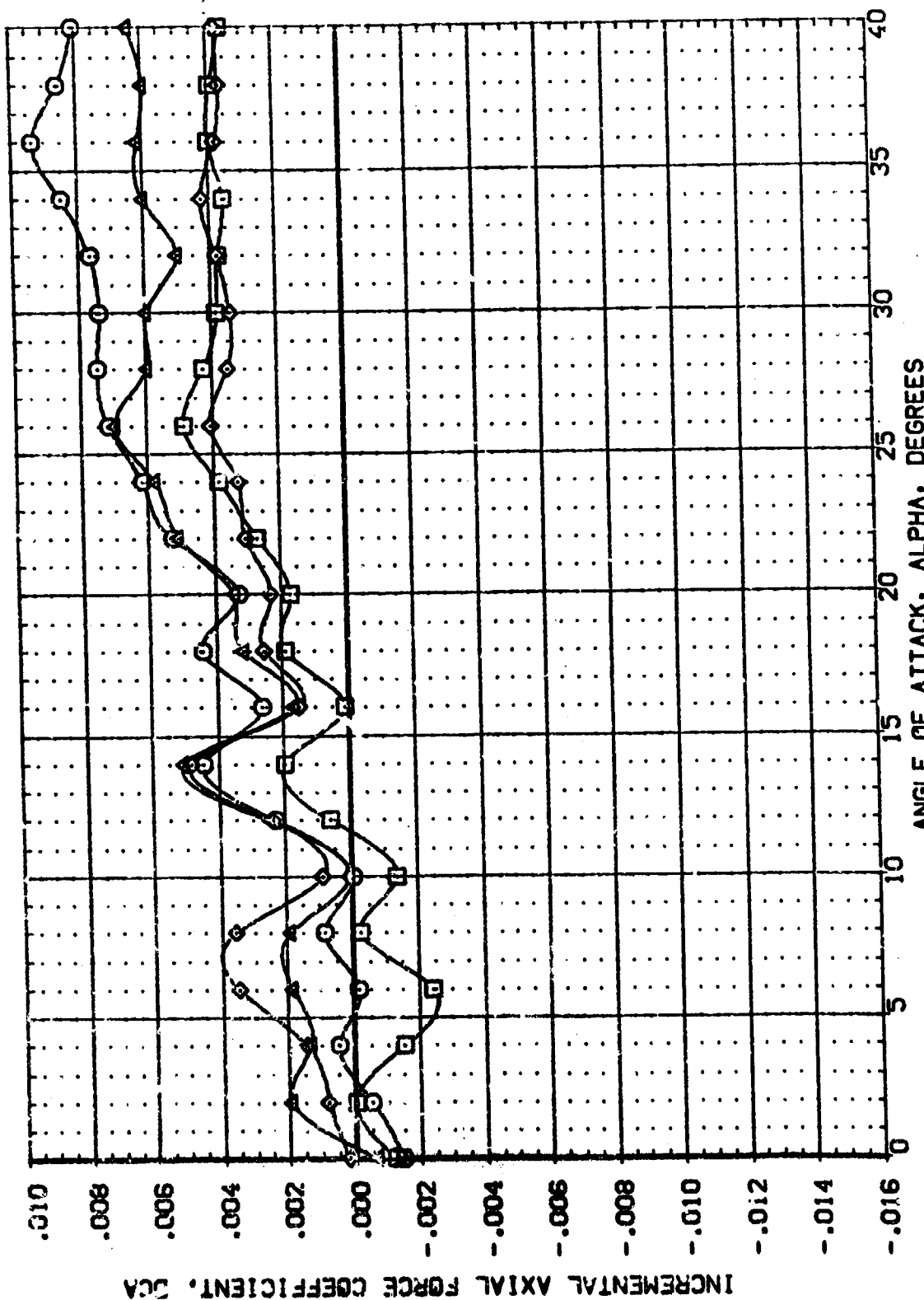


FIG. 38 INCREMENTAL EFFECT DUE TO TRIMMER FOR ORBITER 139B
 (F)MACH = 4.96

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		BETA		ELEVTR		SPDRK		SDFLAP		REFERENCE INFORMATION	
(087505)	□	MSC 574(048)	CSB 1398 V/H19	.000	.000	.999.990	.000	.000	.000	.000	.000	SREF	2690.0000
(087506)	○	MSC 574(048)	CSB 1398 V/H20	.000	.000	.999.990	.000	.000	.000	.000	.000	LREF	474.8000
(087507)	△	DATA NOT AVAILABLE		.000	.000	.999.990	.000	.000	.000	.000	.000	BREF	936.7000
(087508)	×	MSC 574(048)	CSB 1398 V/H23	.000	.000	.999.990	.000	.000	.000	.000	.000	XREF	838.7000
(087509)												YREF	.0000
(087510)												ZREF	.0000
(087511)												SCALE	.0010

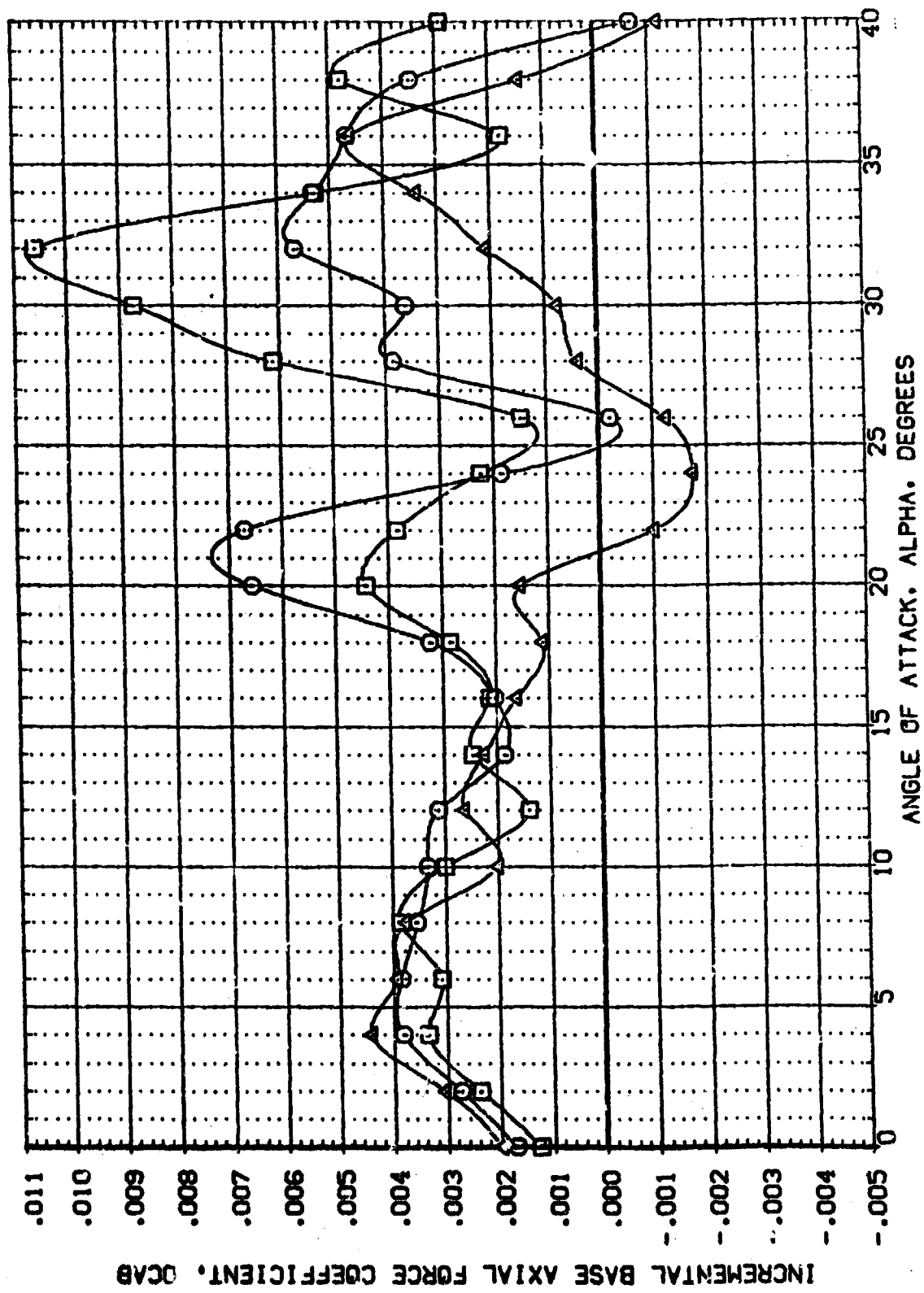


FIG. 38 INCREMENTAL EFFECT DUE TO TRIMMER FOR ORBITER 139B

(A)MACH = .60

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	SPDRBK	BDFLAP	REFERENCE INFORMATION
(087585)	MSFC 574(0448) ORB 1398 V/H19	.000	.000	999.990	.000	SREF 2690.0000 SQ.FT.
(087581)	MSFC 574(0448) ORB 1398 V/H20	.000	.000	999.990	.000	LREF 474.8000 IN.
(087500)	DATA NOT AVAILABLE	.000	.000	999.990	.000	BREF 936.7000 IN.
(087583)	MSFC 574(0448) ORB 1398 V/H23	.000	.000	999.990	.000	XREF 838.7000 IN.
					TRIP	.0000 IN.
					ZTRIP	.0000 IN.
					SCALE	.0040

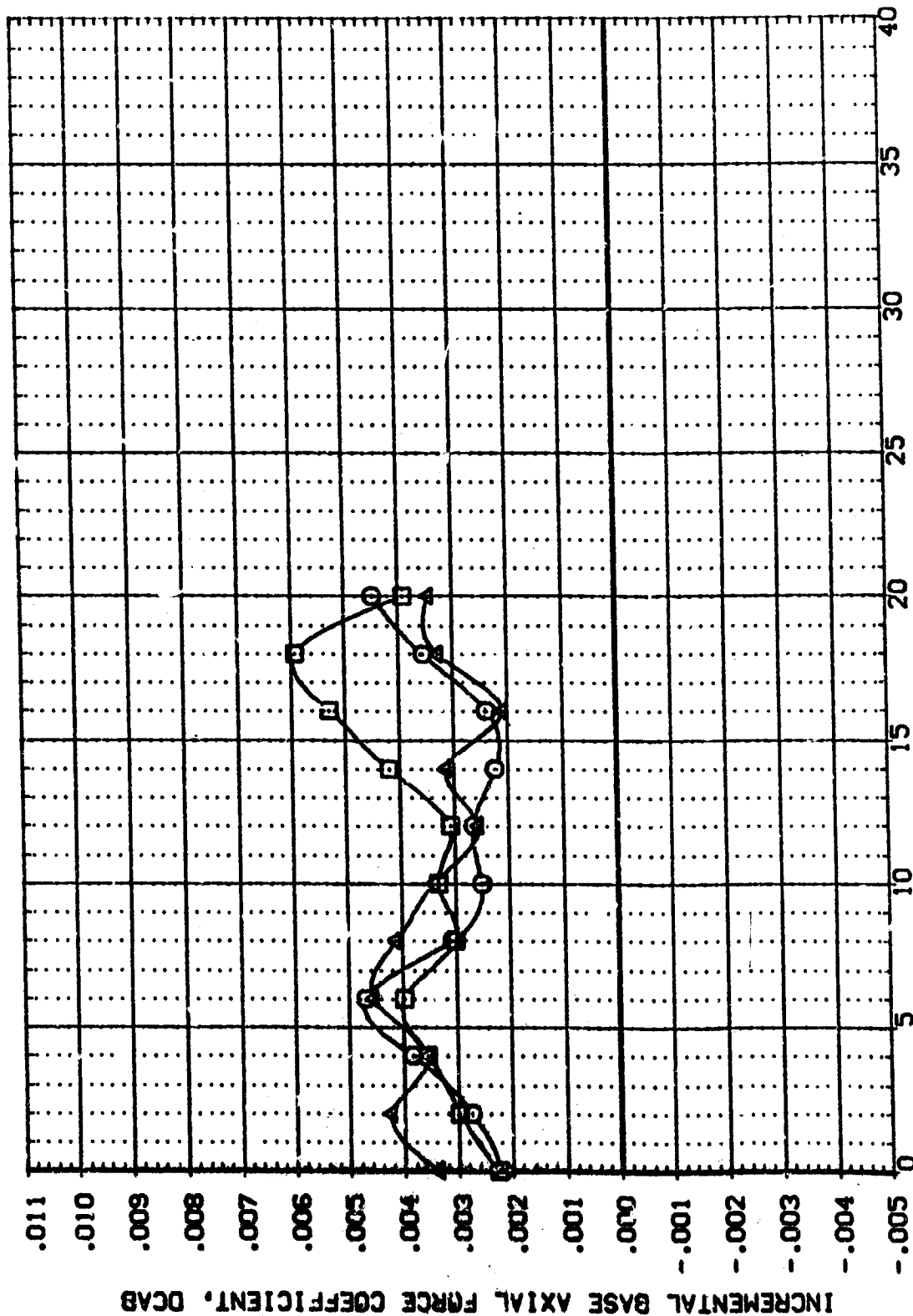


FIG. 38 INCREMENTAL EFFECT DUE TO TRIMMER FOR ORBITER 1398

(B)MACH = .90

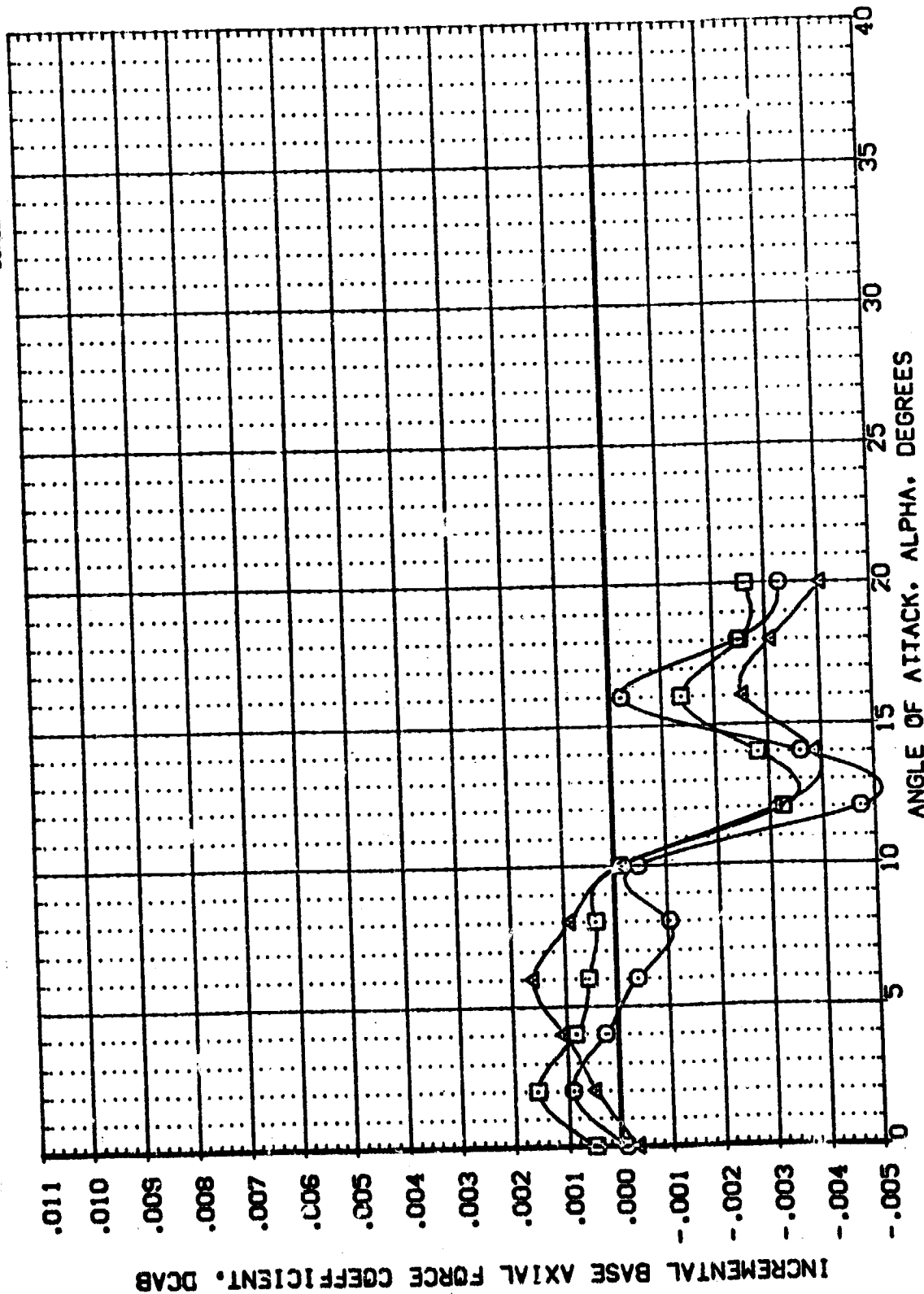
[illegible]

FIG. 38
INCREMENTAL EFFECT DUE TO TRIMMER FOR ORBITER 139B

[C]MACH = 1.20

DATA SET SYMBOL: (087585) (087591) (087593) (087595)
 CONFIGURATION DESCRIPTION: HSC 574(DM8) ORB 1398 V/H19
 HSC 574(DM8) ORB 135C V/H20
 DATA NOT AVAILABLE
 DATA NOT AVAILABLE

BETA: .000
 ELEVTR: .000
 SPOBRK: 999.990
 BOFLAP: .000
 REFERENCE INFORMATION: SREF 2690.0000 SO.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XGRP 838.7000 IN.
 YGRP .0000 IN.
 ZGRP .0000 IN.
 SCALE .0010



FIG. 38 INCREMENTAL EFFECT DUE TO TRIMMER FOR ORBITER 1398

(0)MACH = 1.96



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	SPDRBK	BOFLAP	REFERENCE INFORMATION
(087585)	H57C 574(0418) 098 1358 V/H19	.000	.000	999.990	.000	SREF 2690.0000 SQ.FT.
(087581)	H57C 574(0418) 098 1358 V/H20	.000	.000	999.990	.000	LREF 474.8000 IN.
(087580)	H57C 574(0418) 098 1358 V/H22	.000	.000	999.990	.000	BREF 936.7000 IN.
(087582)	H57C 574(0418) 098 1358 V/H23	.000	.000	999.990	.000	XREF 838.7000 IN.
						YREF .0000 IN.
						ZREF .0000 IN.
						SCALE .0040

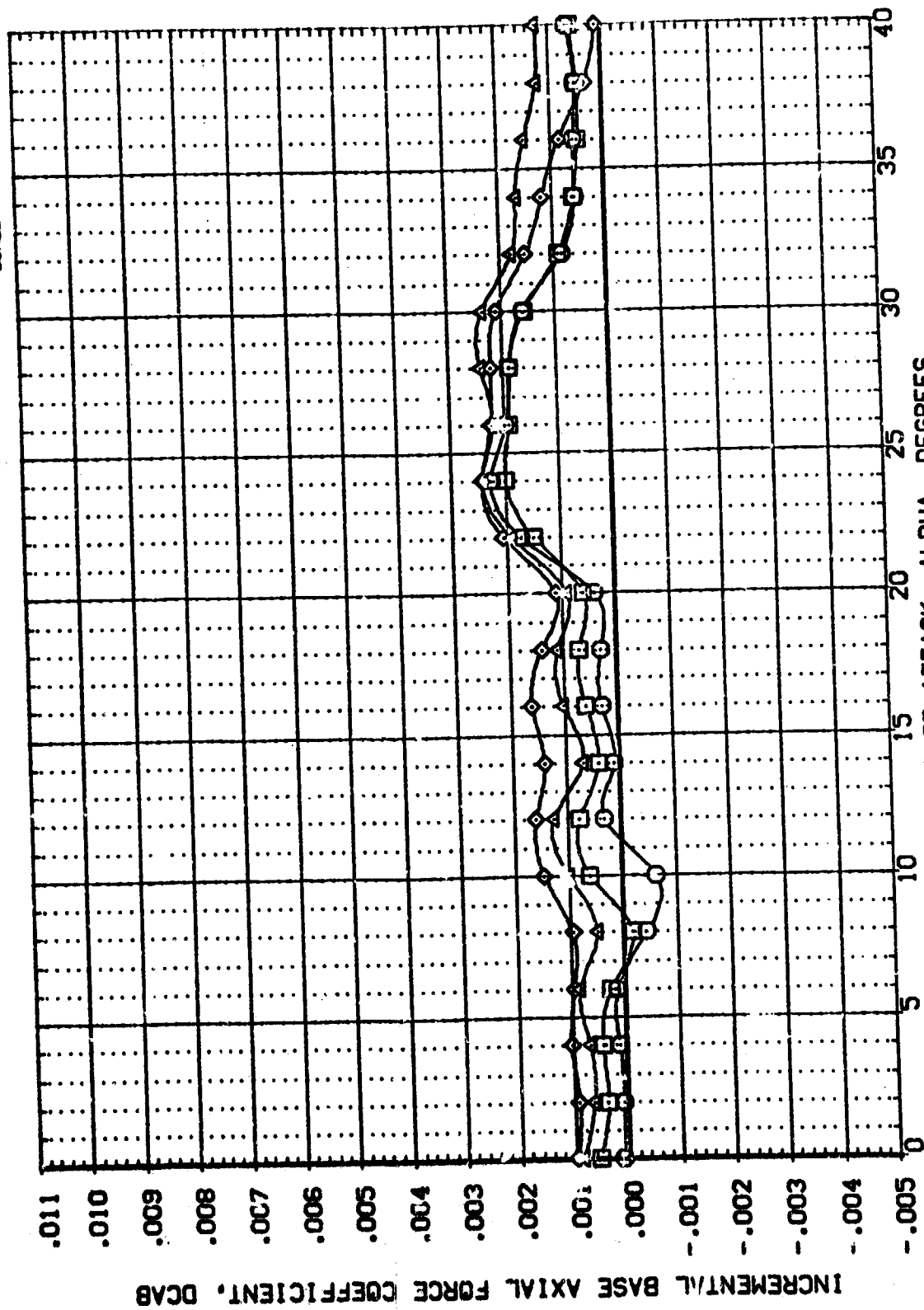


FIG. 38 INCREMENTAL EFFECT DUE TO TRIMMER FOR ORBITER 1398

(E)MACH = 2.99

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	SPDRK	BOFLAP	REFERENCE INFORMATION
(087585)	MSFC 574(0448) ORB 1398 V/H19	.000	.000	999.990	.000	SREF 2690.0000 SQ.FT.
(087591)	MSFC 574(0448) ORB 1398 V/H20	.000	.000	999.990	.000	LREF 474.8000 IN.
(087590)	MSFC 574(0448) ORB 1398 V/H22	.000	.000	999.990	.000	BREF 936.7000 IN.
(087593)	MSFC 574(0448) ORB 1398 V/H23	.000	.000	999.990	.000	XTRP 838.7000 IN.
						YTRP .0000 IN.
						ZTRP .0000 IN.
						SCALE .0040

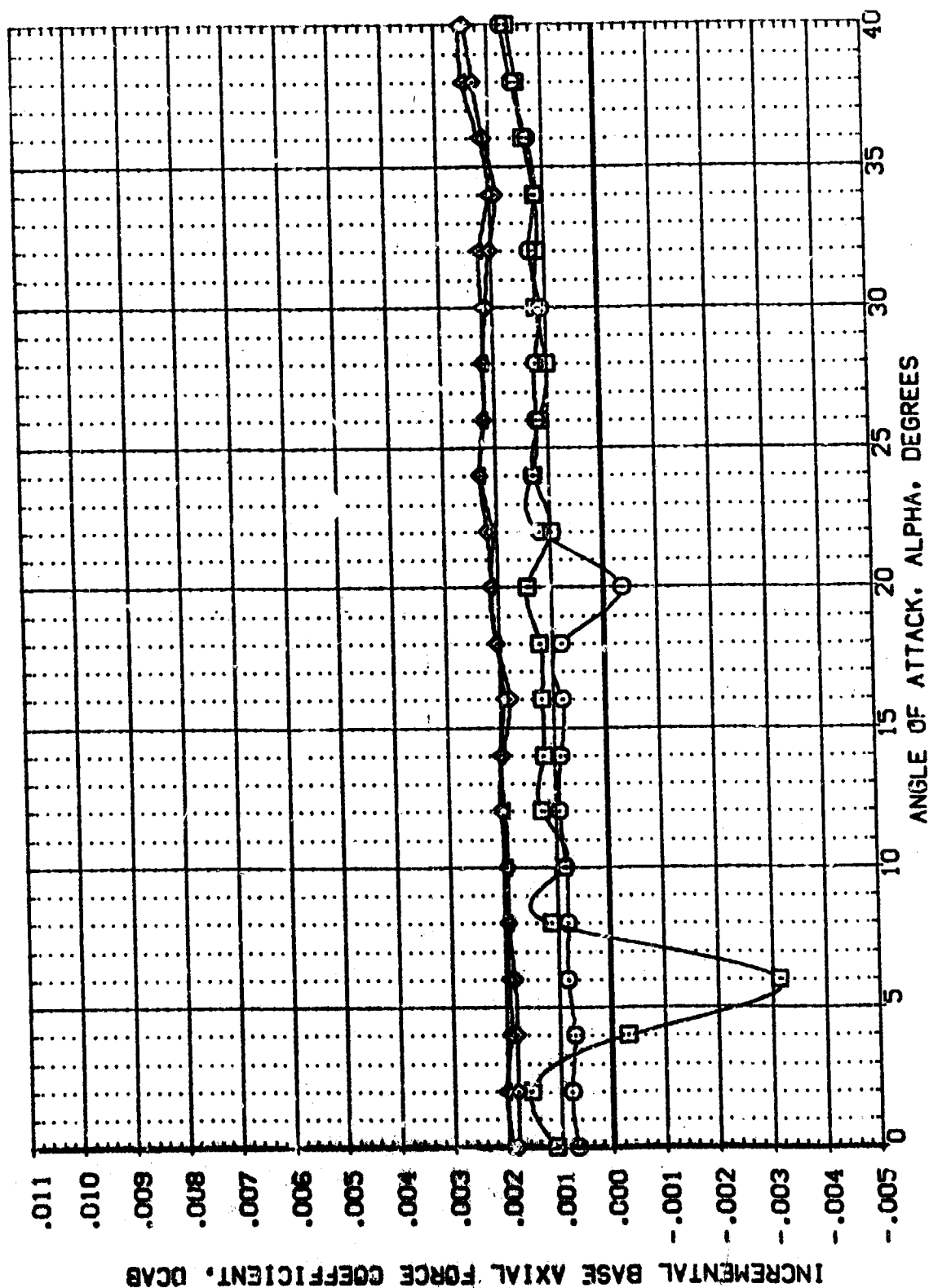


FIG. 38 INCREMENTAL EFFECT DUE TO TRIMMER FOR ORBITER 1396

REFERENCE INFORMATION

SREF	2690.0000	SO.FT.
LREF	474.8000	IN.
BREF	936.7000	IN.
XPRP	838.0000	IN.
YPRP	.0000	IN.
ZPRP	.0000	IN.
SCALE	.0040	

BETA DE DEF

BETA	DE	DEF
.000	15.000	13.750
.000	-10.000	-14.250
.000	-20.000	

DATA SET SYMBOL CONFIGURATION DESCRIPTION

MSFC 574(0A48)	ORB 139B	W/ALT NOSE
MSFC 574(0A48)	ORB 139B	V/ALT NOSE
MSFC 574(0A48)	ORB 139B	V/ALT NOSE

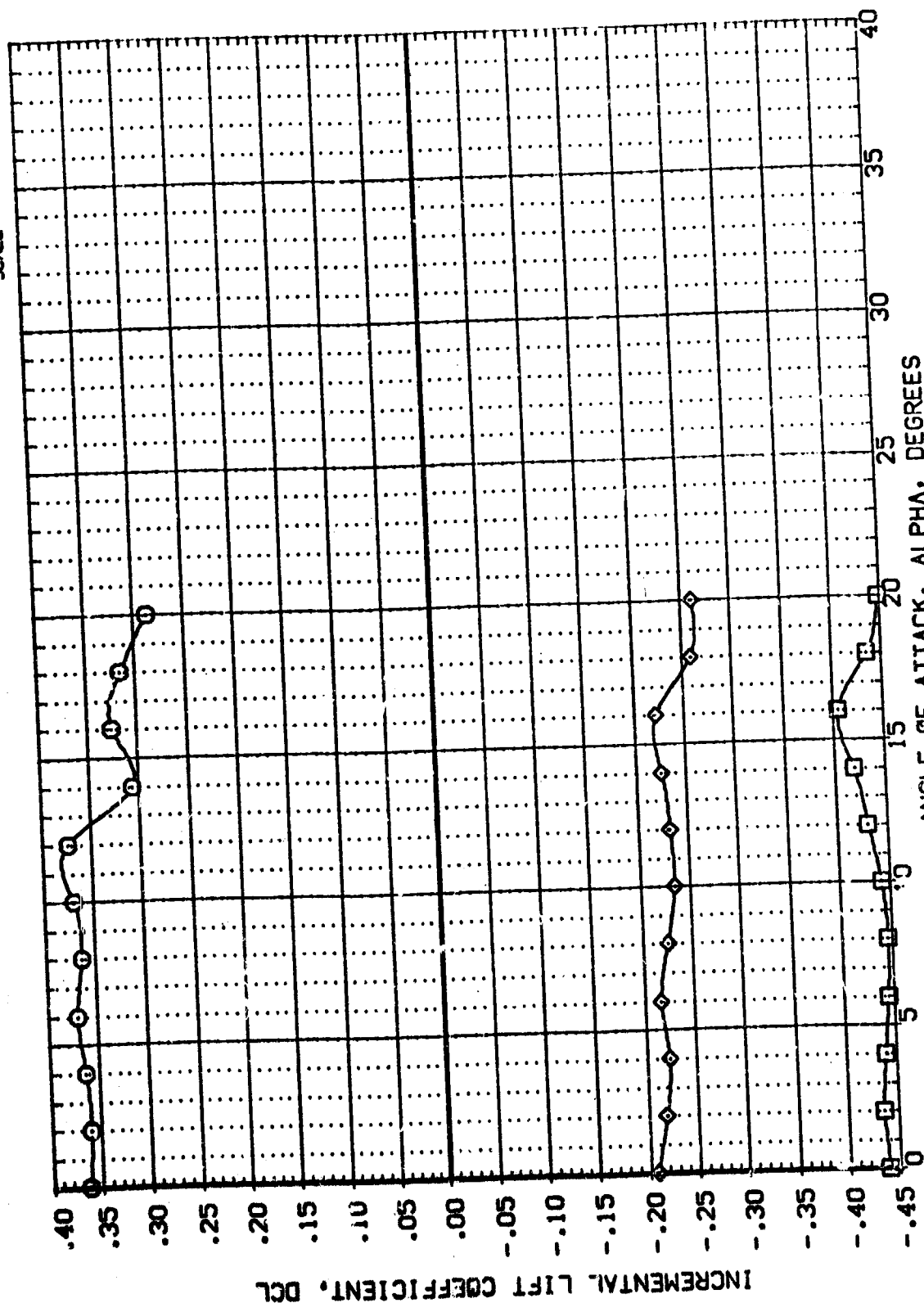


FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139B WITH ALT. NOSE

(A)MACH = .60

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XPRP 838.7000 IN.
 YPRP .0000 IN.
 ZPRP .0000 IN.
 SCALE .0040

BETA DE DBF
 .000 15.000 13.750
 .000 -40.000 -14.250
 .000 -20.000 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (387328) MSFC 574(0A48) ORB 1398 V/ALT NOSE
 (087542) MSFC 574(0A48) ORB 1398 V/ALT NOSE
 (287540) MSFC 574(0A48) ORB 1398 V/ALT NOSE

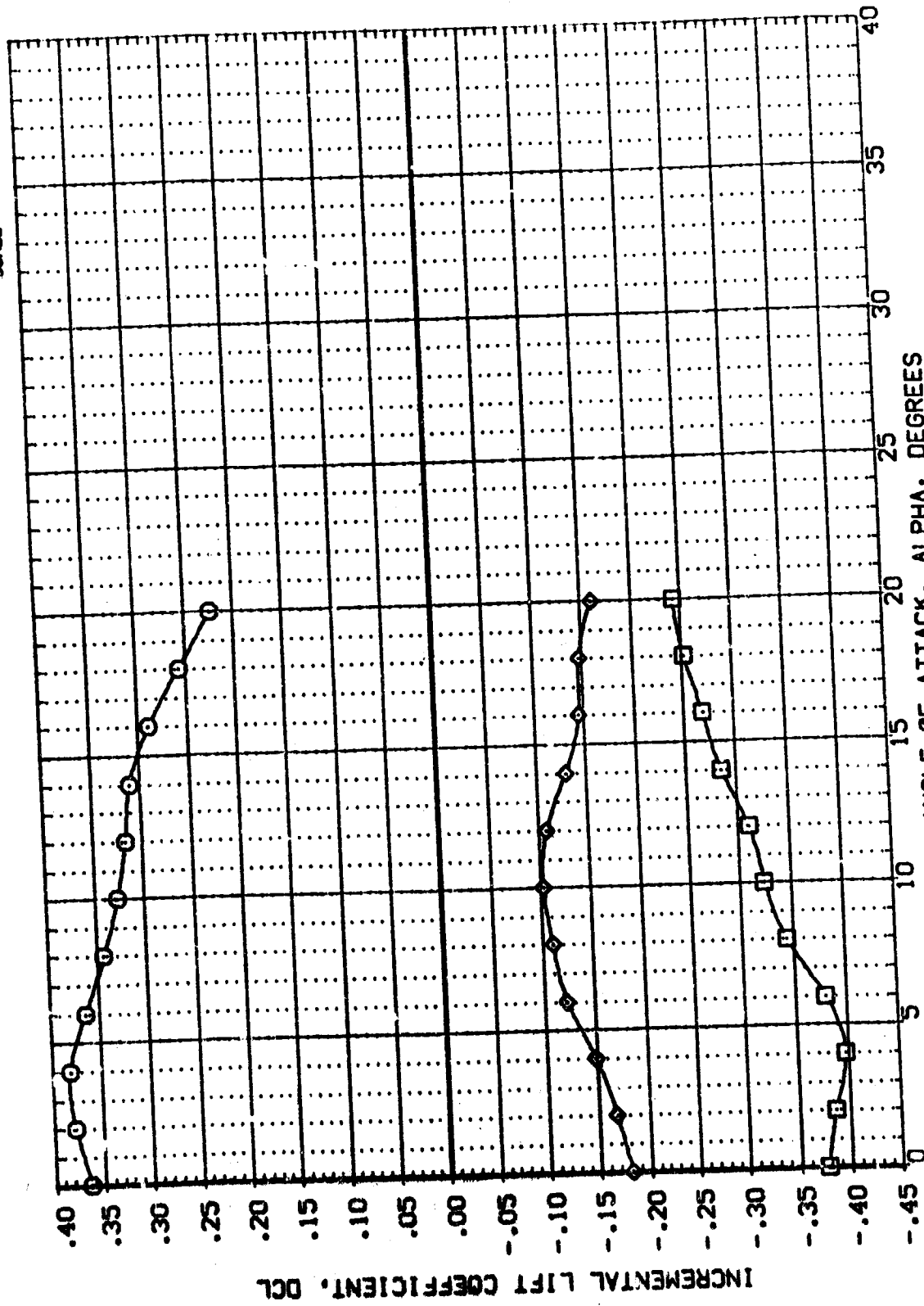


FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 1398 WITH ALT. NOSE
 (B)MACH = .90

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XREF 838.0000 IN.
 YREF .0000 IN.
 ZREF .0040 IN.
 SCALE

BETA DE DEF
 .000 15.000 13.750
 .000 -40.000 -14.250
 .000 -20.000 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (007538) MSFC 57A(0A48) ORB 139B V/ALT NOSE
 (007542) MSFC 57A(0A48) ORB 139B V/ALT NOSE
 (207540) MSFC 57A(0A48) ORB 139B V/ALT NOSE

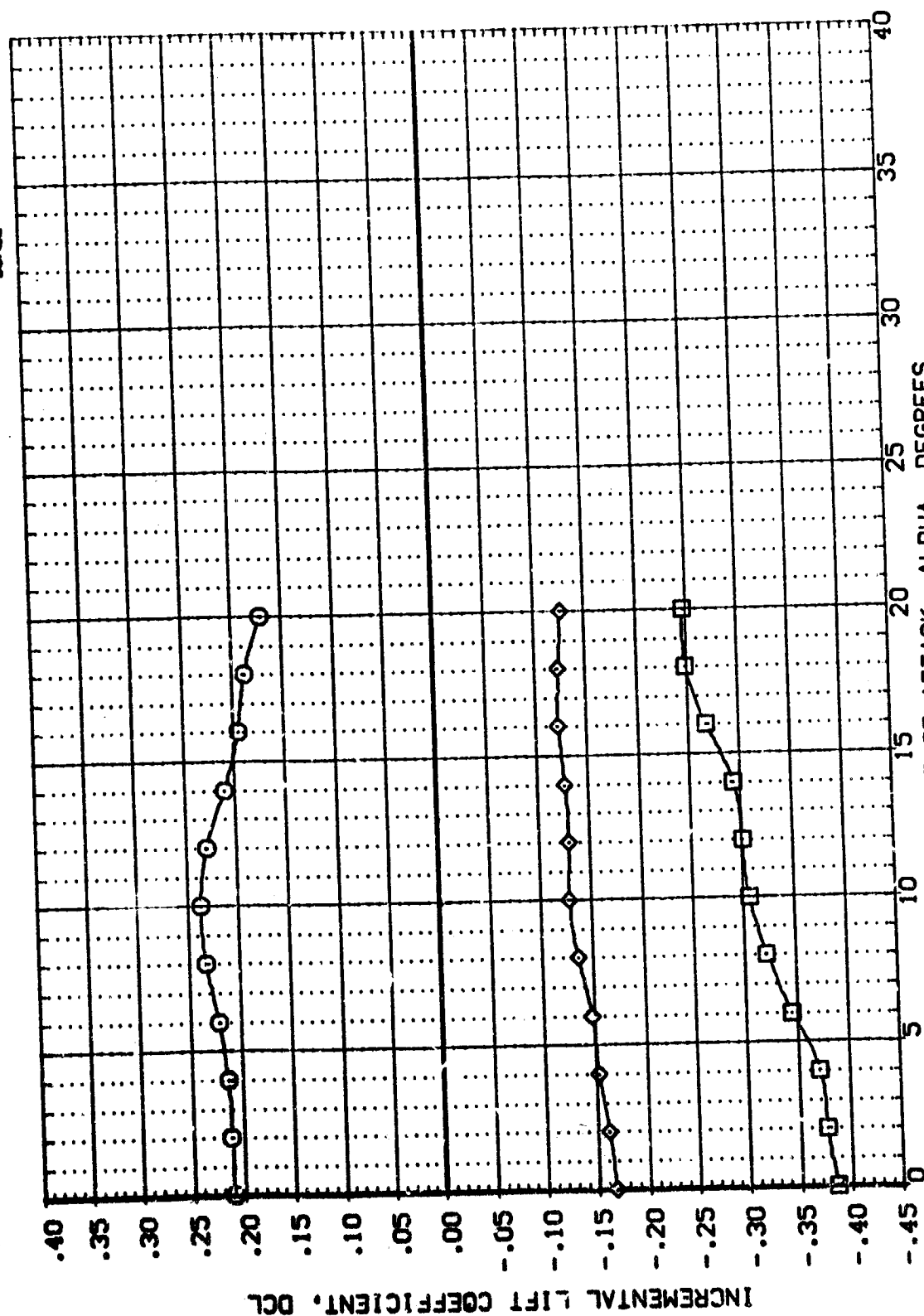


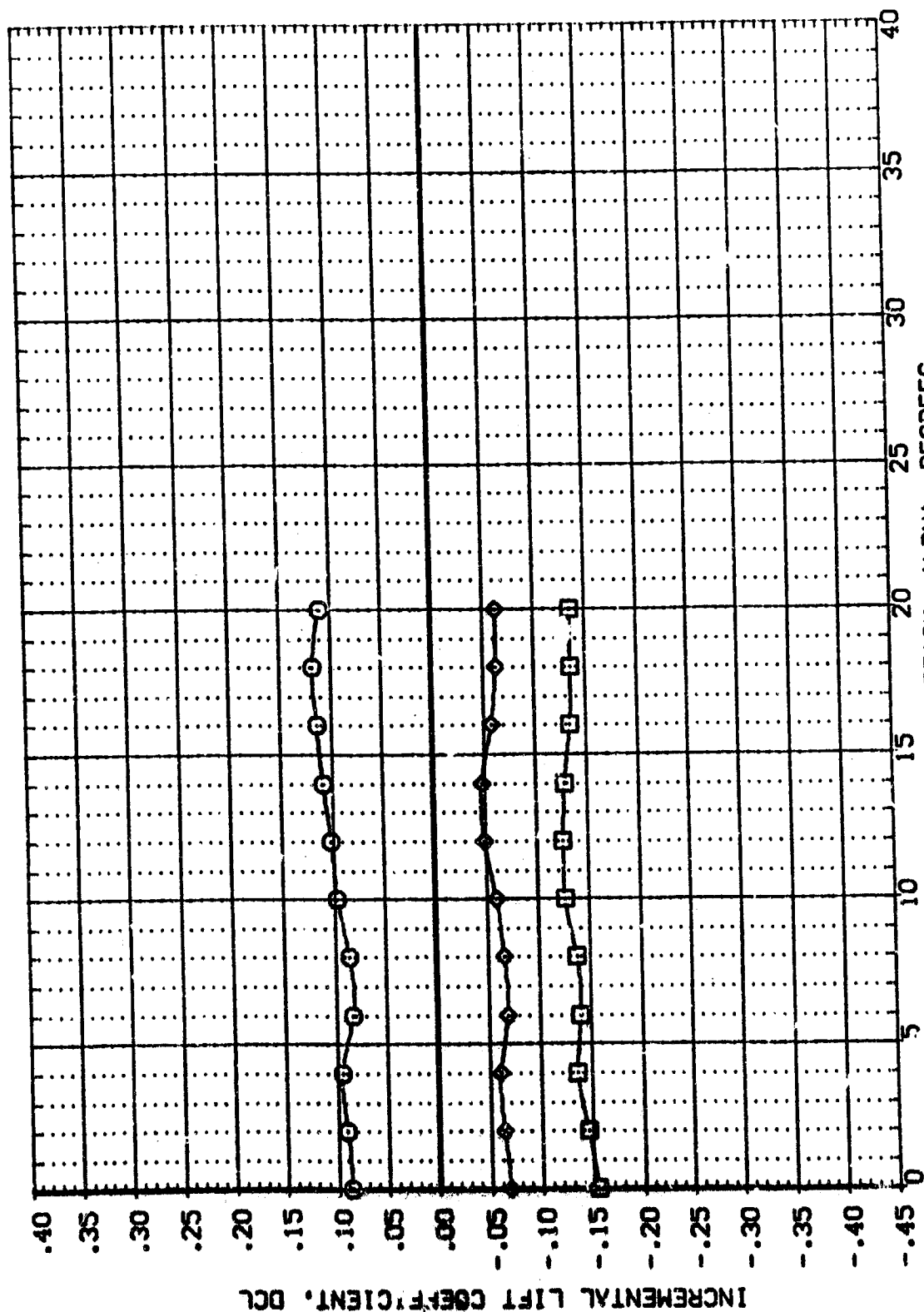
FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139B WITH ALT. NOSE
 (C)MACH = 1.20

DATA SET SYMBOL: (087538) (087542) (257540)

CONFIGURATION DESCRIPTOR: H57C 574(0M43) ORB 139B V/ALT NOSE
H57C 574(0M48) ORB 139B V/ALT NOSE
H57C 574(0M48) ORB 139B V/ALT NOSE

BETA: .000
DE: 15.000
DEF: 13.750

REFERENCE INFORMATION: SREF 2690.0000 SQ.FT. IN.
LREF 474.8000 IN.
BREF 935.7000 IN.
XREF 838.7000 IN.
YREF .0000 IN.
ZREF .0000 IN.
SCALE .0040



ANGLE OF ATTACK, ALPHA, DEGREES

FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139B WITH ALT. NOSE

(D)MACH = 1.96

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087538) MSFC 574(0448) ORB 139B V/ALT NOSE
 (087542) MSFC 574(0448) ORB 139B V/ALT NOSE
 (287540) MSFC 574(0448) ORB 139B V/ALT NOSE

BETA DE DBF
 .000 15.000 13.750
 .000 -40.000 -14.250
 .000 -20.000 .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XREF 838.7000 IN.
 YREF .0000 IN.
 ZREF .0000 IN.
 SCALE .0040

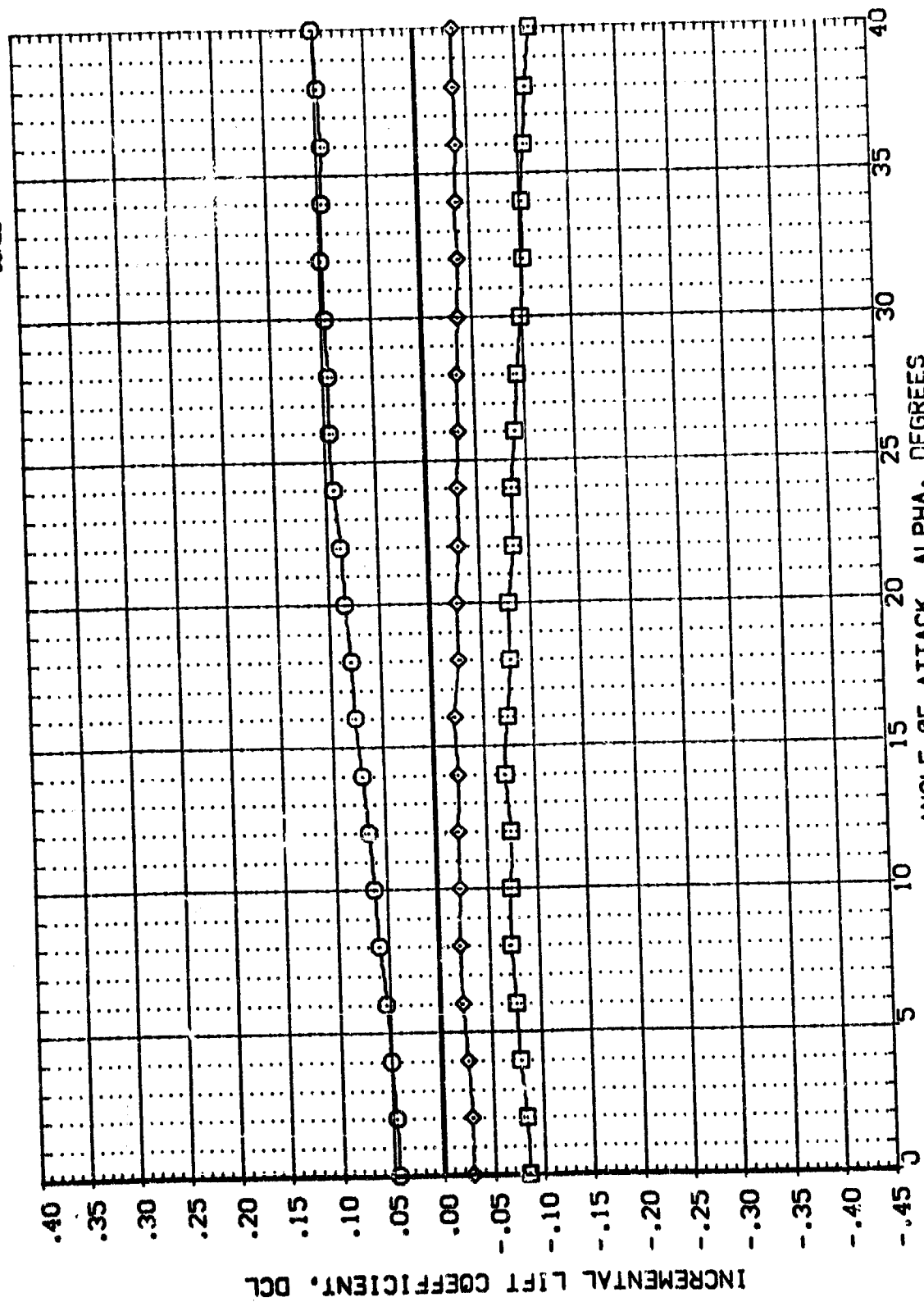


FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139B WITH ALT. NOSE
 (E)MACH = 2.99

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(087538)	MSFC 574(0A48) ORB 139B V/ALT NOSE
(087542)	MSFC 574(0A48) ORB 139B V/ALT NOSE
(287540)	MSFC 574(0A48) ORB 139B V/ALT NOSE

BETA DE DBF

.000	15.000	13.750
.000	-40.000	-14.250
.000	-20.000	.000

REFERENCE INFORMATION

SREF	2650.0000	50. FT.
UREF	474.8000	IN.
BREF	936.7000	IN.
XREF	836.7000	IN.
YREF	.0000	IN.
ZREF	.0000	IN.
SCALE	.0040	

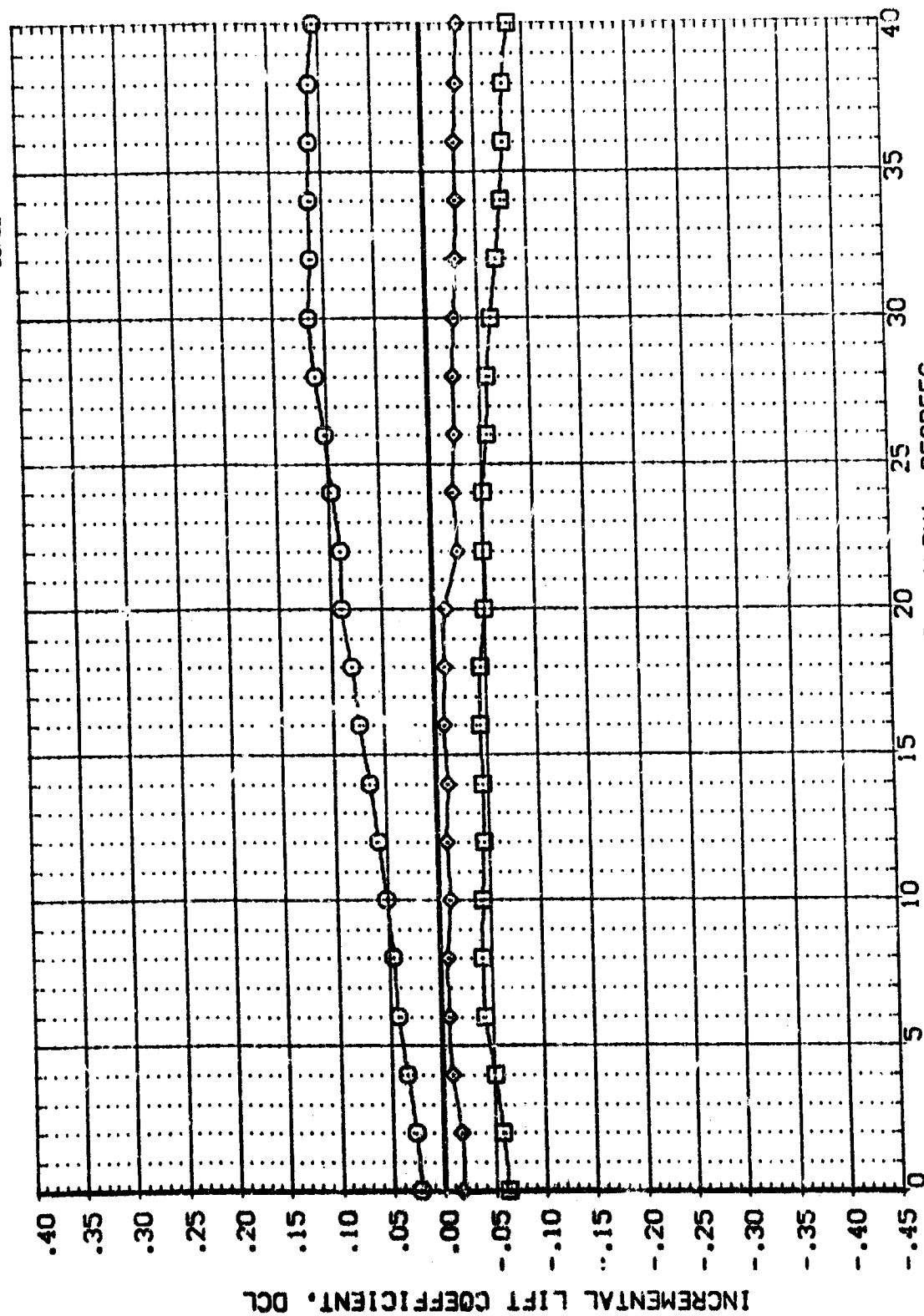


FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139B WITH ALT. NOSE
(F)MACH = 4.96

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XMRP 838.7000 IN.
 YMRP .0000 IN.
 ZMRP .0000 IN.
 SCALE .0043

BETA DE DEF
 .000 15.000 13.750
 .000 -40.000 -14.250
 .000 -20.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087538) MSFC 574(0A48) 0RB 1398 V/ALT NOSE
 (087542) MSFC 574(0A48) 0RB 1398 V/ALT NOSE
 (287540) MSFC 574(0A48) 0RB 1398 V/ALT NOSE

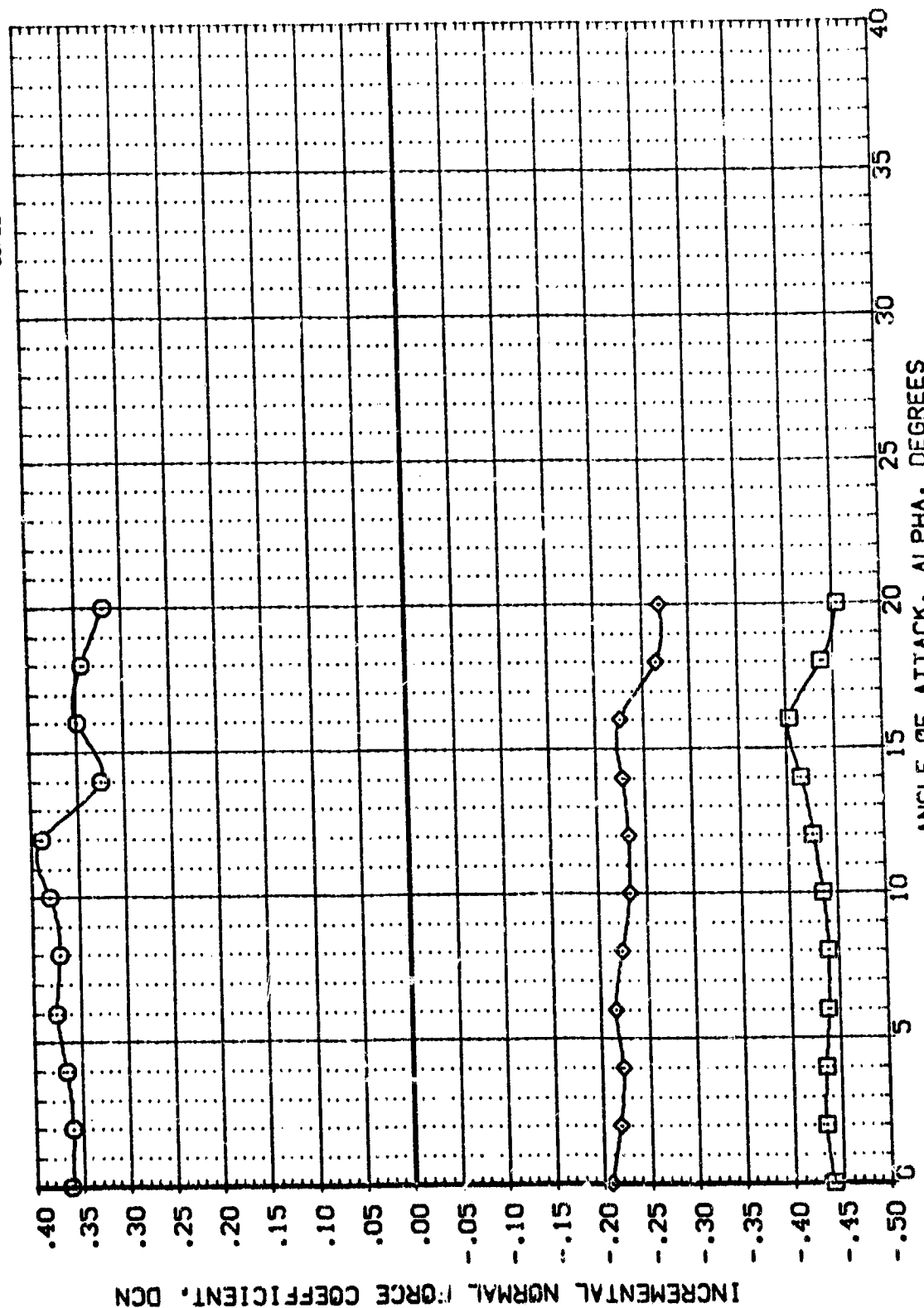


FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 1398 WITH ALT. NOSE
 (A)MACH = .60
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REFERENCE INFORMATION

SREF	2690.0000	50-FT.
LREF	474.9000	IN.
BREF	936.7000	IN.
YMRP	839.7000	IN.
ZMRP	.0000	IN.
SCALE	.0040	

BETA DE DBF

.000	15.000	13.750
.000	-40.000	-14.250
.000	-20.000	.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(087538)	MSFC 574(0A48) ORB 1398 V/ALT NOSE
(087542)	MSFC 574(0A48) ORB 1398 V/ALT NOSE
(287540)	MSFC 574(0A48) ORB 1398 V/ALT NOSE

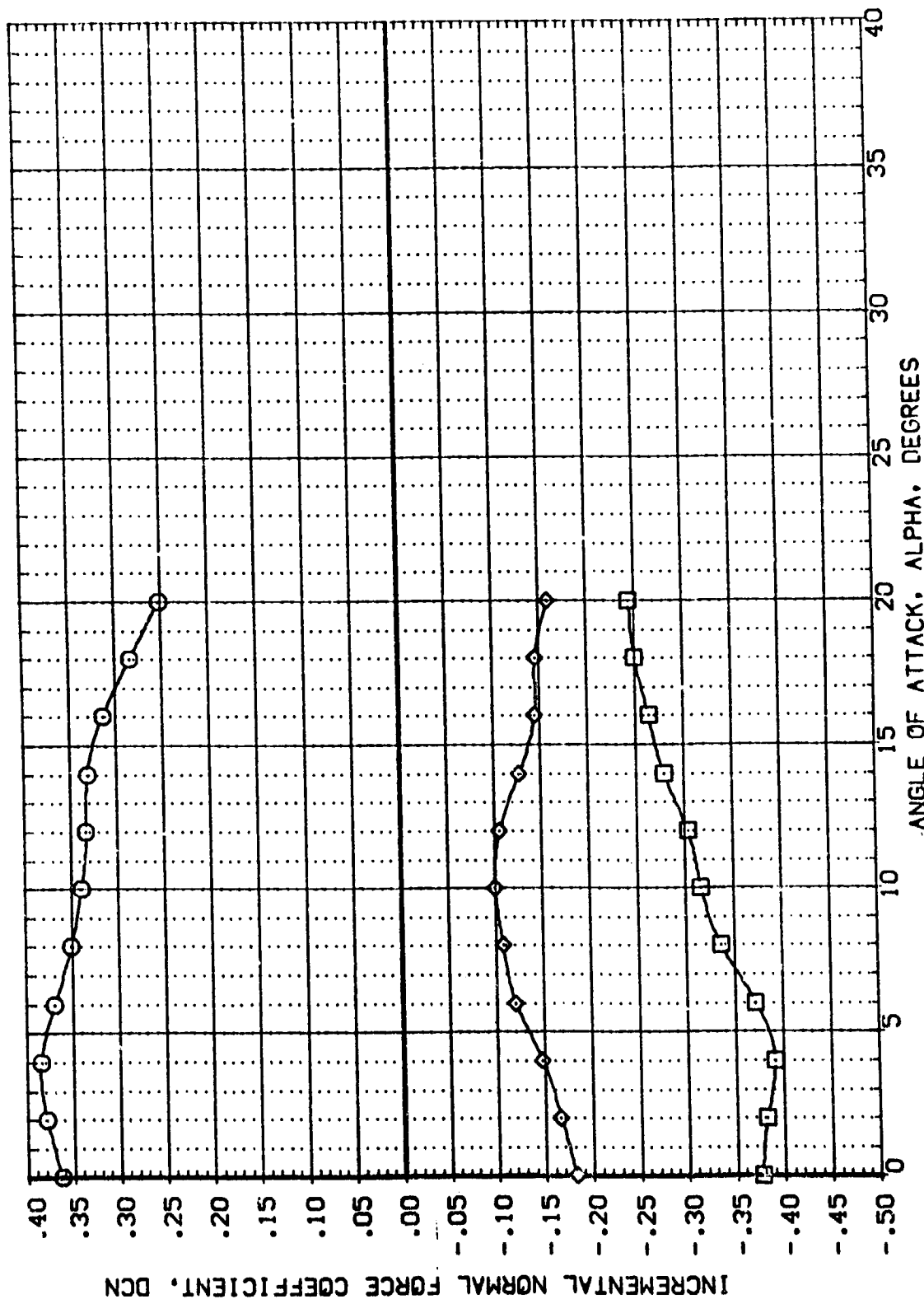


FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 1398 WITH ALT. NOSE

(B)MACH = .90

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087538) HSC 574(0418) ORB 139B V/ALT NOSE
 (087542) HSC 574(0418) ORB 139B V/ALT NOSE
 (287540) HSC 574(0418) ORB 139B V/ALT NOSE

BETA DE DBF
 .000 15.000 13.750
 .000 -10.000 -14.250
 .000 -20.000 .000
 REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 538.7000 IN.
 XMRP 838.0000 IN.
 YMRP .0000 IN.
 ZMRP .0000 IN.
 SCALE .0040

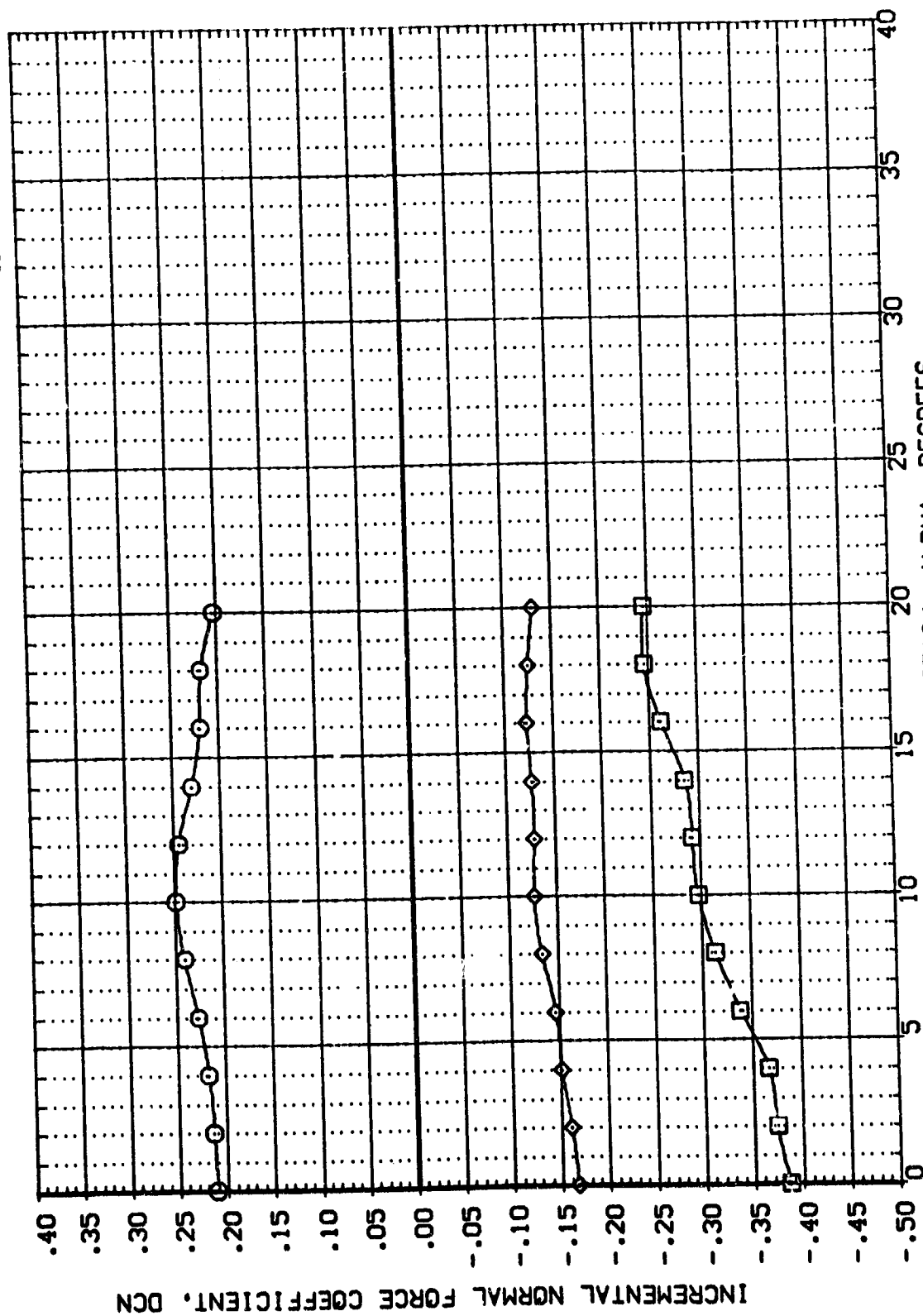


FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139B WITH ALT. NOSE

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	DSF	REFERENCE INFORMATION
(087328)	MSFC 574(0A48) ORB 1398 V/ALT NOSE	.000	15.000	13.750	SREF 2690.0000 SQ.FT.
(087542)	MSFC 574(0A48) ORB 1398 V/ALT NOSE	.000	-40.000	-14.250	LREF 474.8000 IN.
(287540)	MSFC 574(0A48) ORB 1398 V/ALT NOSE	.000	-20.000	.000	BREF 933.7000 IN.
					XMRP 838.7000 IN.
					YMRP .0000 IN.
					ZMRP .0000 IN.
					SCALE .0040

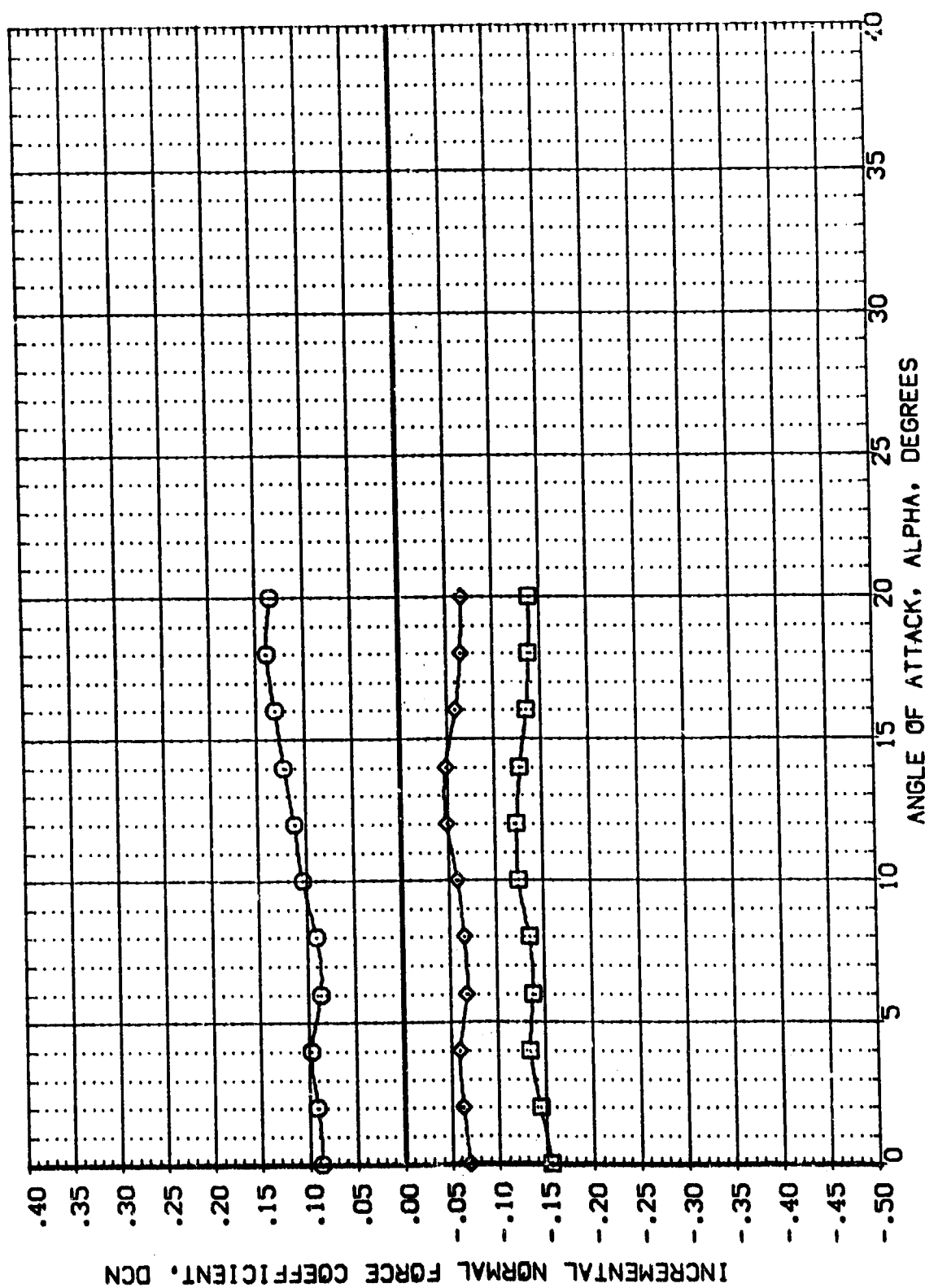


FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 1398 WITH ALT. NOSE

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	DBF	REFERENCE INFORMATION
(087538)	MSFC 574(DA48) ORB 1398 V/ALT NOSE	.000	15.000	13.750	SREF 2690.0000 SQ.FT.
(087542)	MSFC 574(DA48) ORB 1398 V/ALT NOSE	.000	-40.000	-14.250	LREF 474.8000 IN.
(287540)	MSFC 574(DA48) ORB 1398 V/ALT NOSE	.000	-23.000	.000	BREF 936.7000 IN.
					XREF 838.7000 IN.
					YREF .0000 IN.
					ZREF .0040 IN.
					SCALE

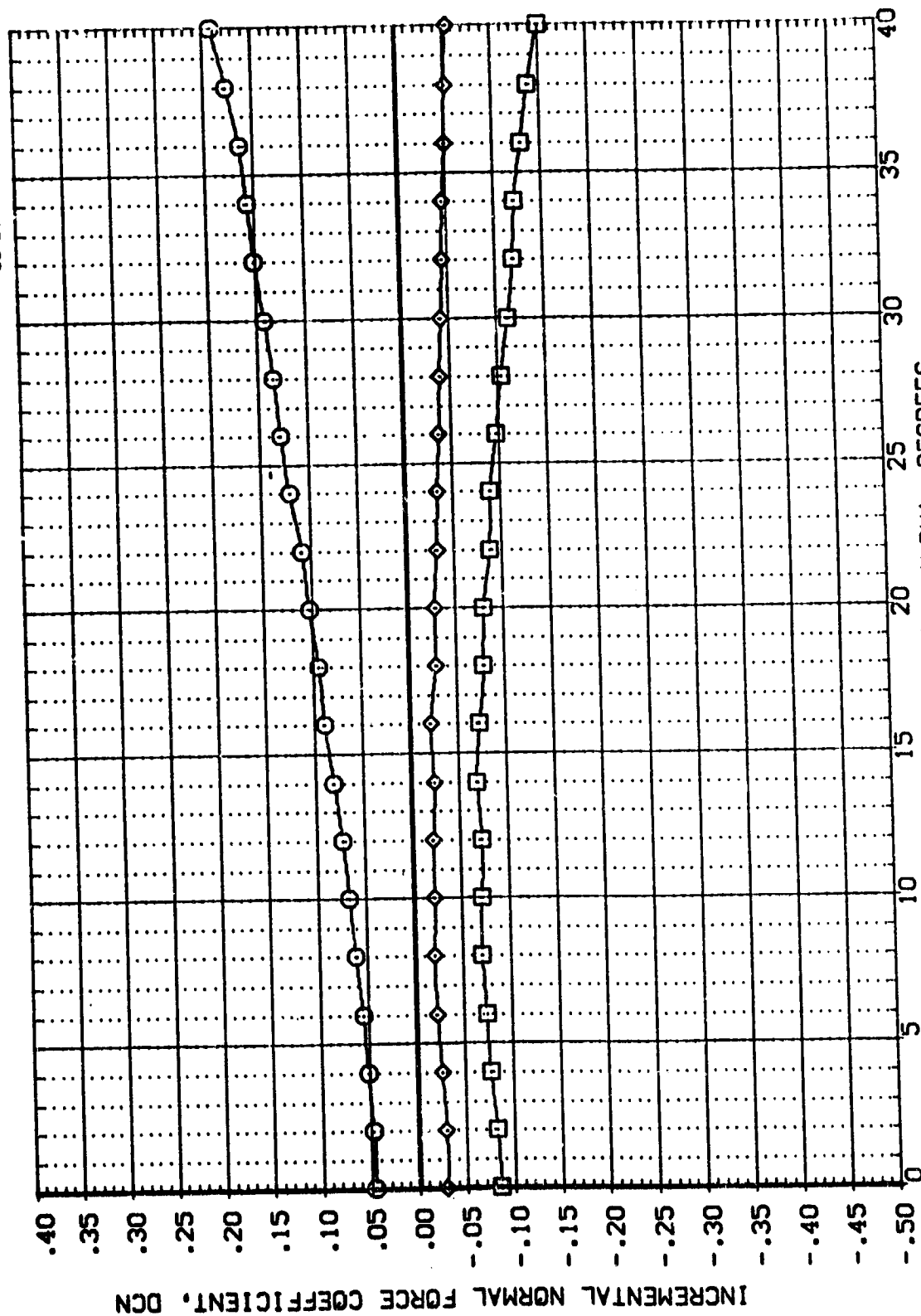


FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 1398 WITH ALT. NOSE
(E)MACH = 2.99

REFERENCE INFORMATION
 SQ.FT.
 SREF 2690.0000
 LREF 474.6000
 BREF 935.7000
 XTRP 838.7000
 YTRP .0000
 ZTRP .0000
 SCALE .0040

BETA DE DBF
 .000 15.000 13.750
 .000 -40.000 -14.250
 .000 -20.000 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 MSFC 574(0448) ORB 1398 V/ALT NOSE
 MSFC 574(0448) ORB 1398 V/ALT NOSE
 MSFC 574(0448) ORB 1398 V/ALT NOSE
 (087528)
 (087542)
 (287540)

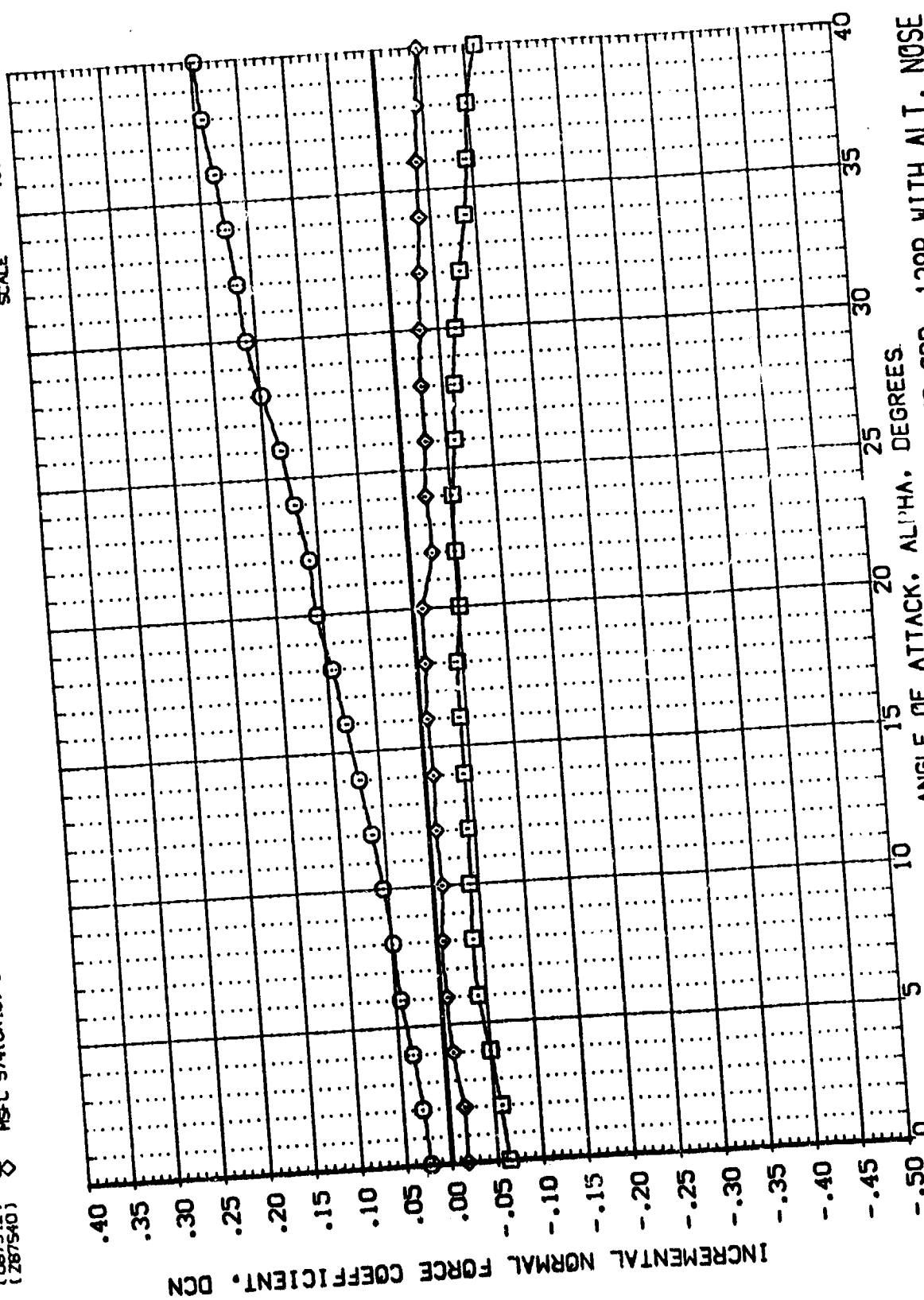


FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 1398 WITH ALT. NOSE
 (F)MACH = 4.96

DATA SET SYMBOL CONFIGURATION DESCRIPTION REFERENCE INFORMATION

(087538)	MSFC 574(0448) ORB 139B V/ALT NOSE	SREF 2690.0000 SQ.FT.
(087542)	MSFC 574(0448) ORB 139B V/ALT NOSE	LREF 474.8000 IN.
(287540)	MSFC 574(0448) ORB 139B V/ALT NOSE	BREF 936.7000 IN.
		XMRP 838.7000 IN.
		YMRP .0000 IN.
		ZMRP .0000 IN.
		SCALE .0040

BETA DE DBF

.000	15.000	13.750
.000	-40.000	-14.250
.000	-20.000	.000

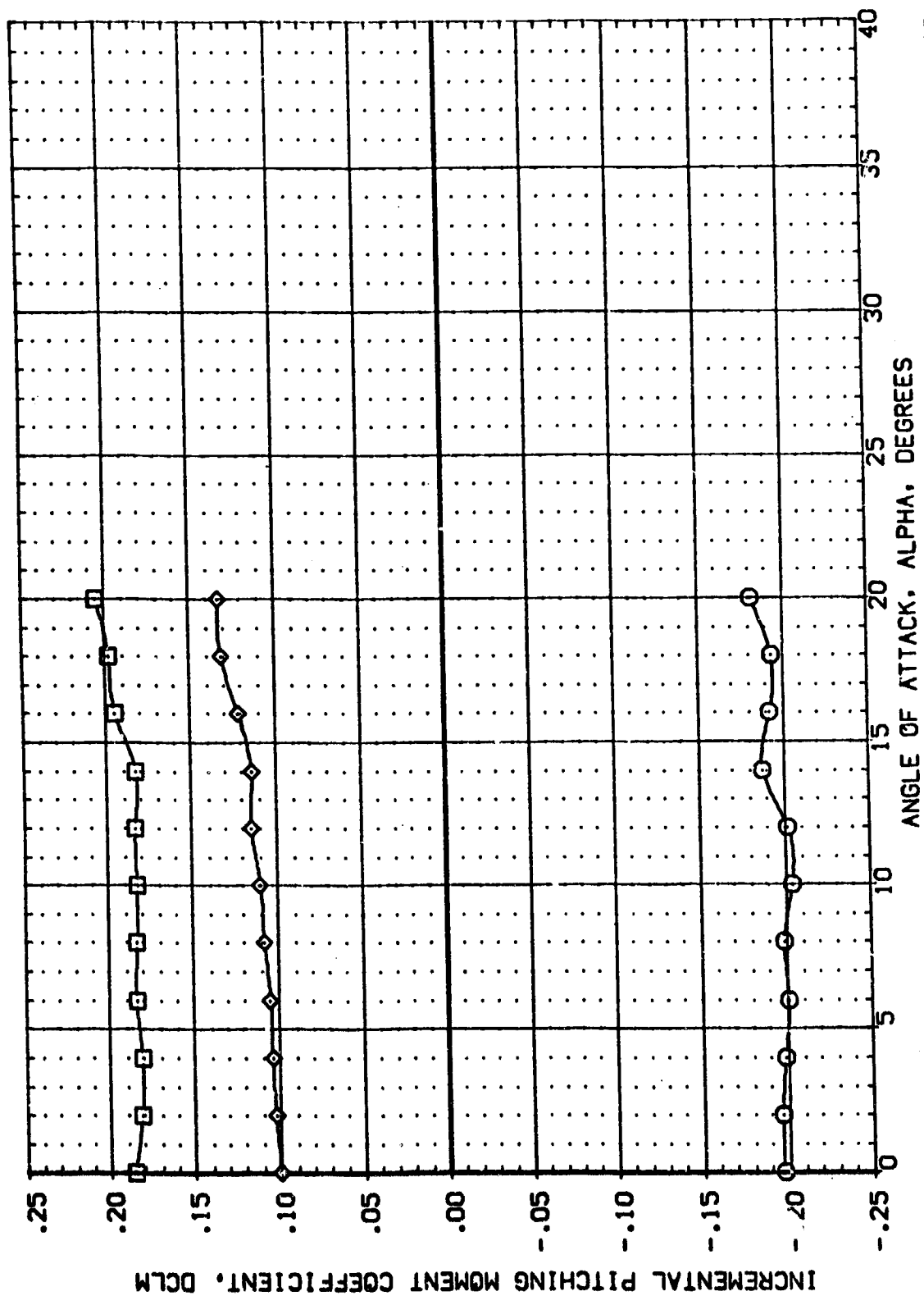


FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139B WITH ALT. NOSE
 (A)MACH = .60

DATA SET SYMBOL: (087538) (087542) (287540)

CONFIGURATION DESCRIPTION: MSFC 574(0A48) CRB 1398 V/ALT NOSE MSFC 574(0A48) CRB 1398 V/ALT NOSE MSFC 574(0A48) CRB 1398 V/ALT NOSE

BETA: .000 .000 .000

DE: 15.000 -40.000 -20.000

DBF: 13.750 -14.250 .000

REFERENCE INFORMATION: SREF 2690.0000 SQ.FT. LREF 474.8000 IN. BREF 936.7000 IN. XMRP 838.7000 IN. YMRP .0000 IN. ZMRP .0000 IN. SCALE .0040

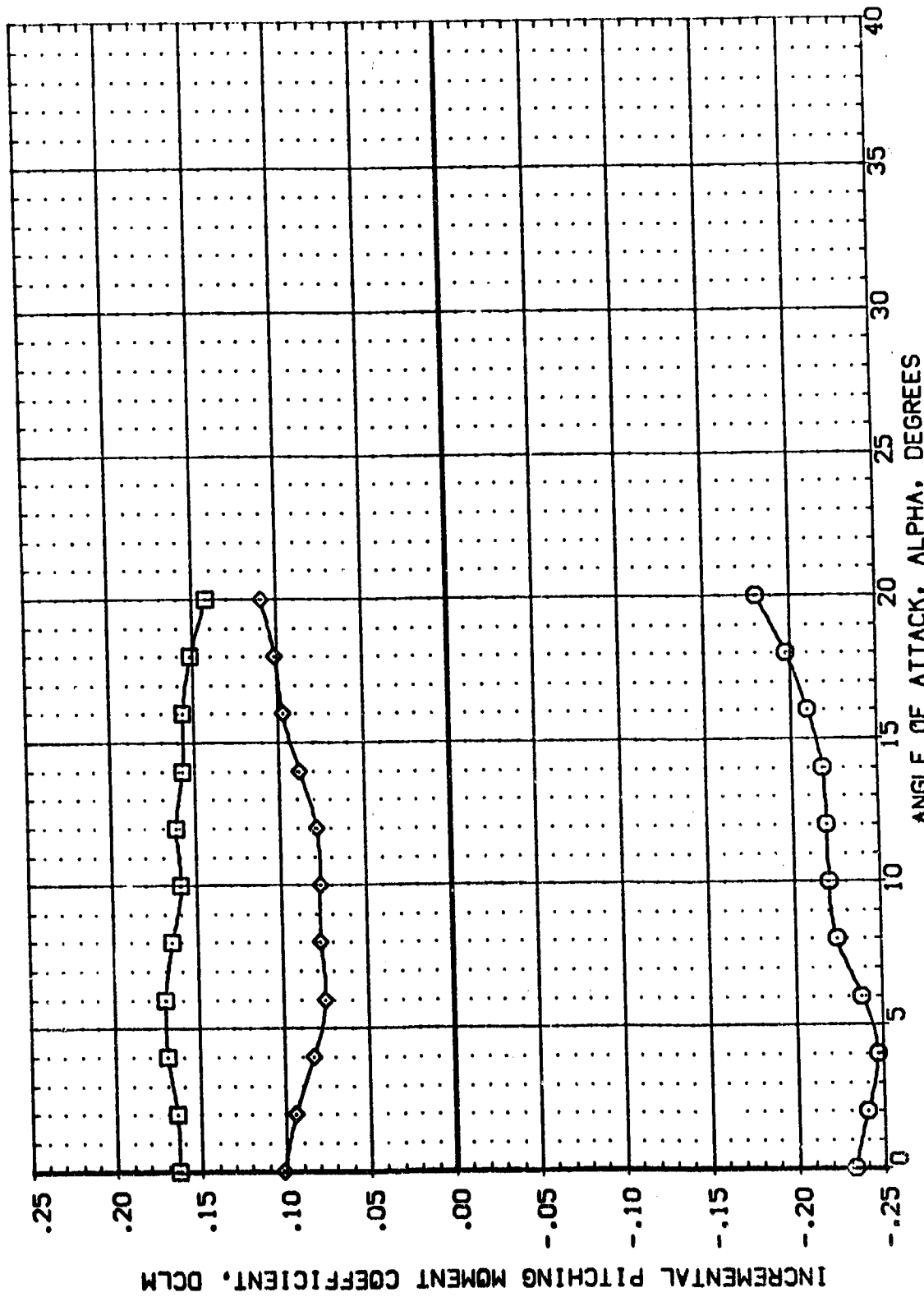


FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 1398 WITH ALT. NOSE

(B)MACH = .90

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DATA SET SYMBOL CONFIGURATION DESCRIPTION

(087538) MSFC 57A(0448) ORB 139B V/ALT NOSE

(087542) MSFC 57A(0448) ORB 139B V/ALT NOSE

(287540) MSFC 57A(0448) ORB 139B V/ALT NOSE

BETA DE DBF

.000 15.000 13.750

.000 -10.000 -14.250

.000 -20.000 .000

REFERENCE INFORMATION

SREF 2630.0000 SQ.FT.

LREF 474.8000 IN.

BREF 936.7000 IN.

XMRP 638.7000 IN.

YMRP .0000 IN.

ZMRP .0000 IN.

SCALE .0040

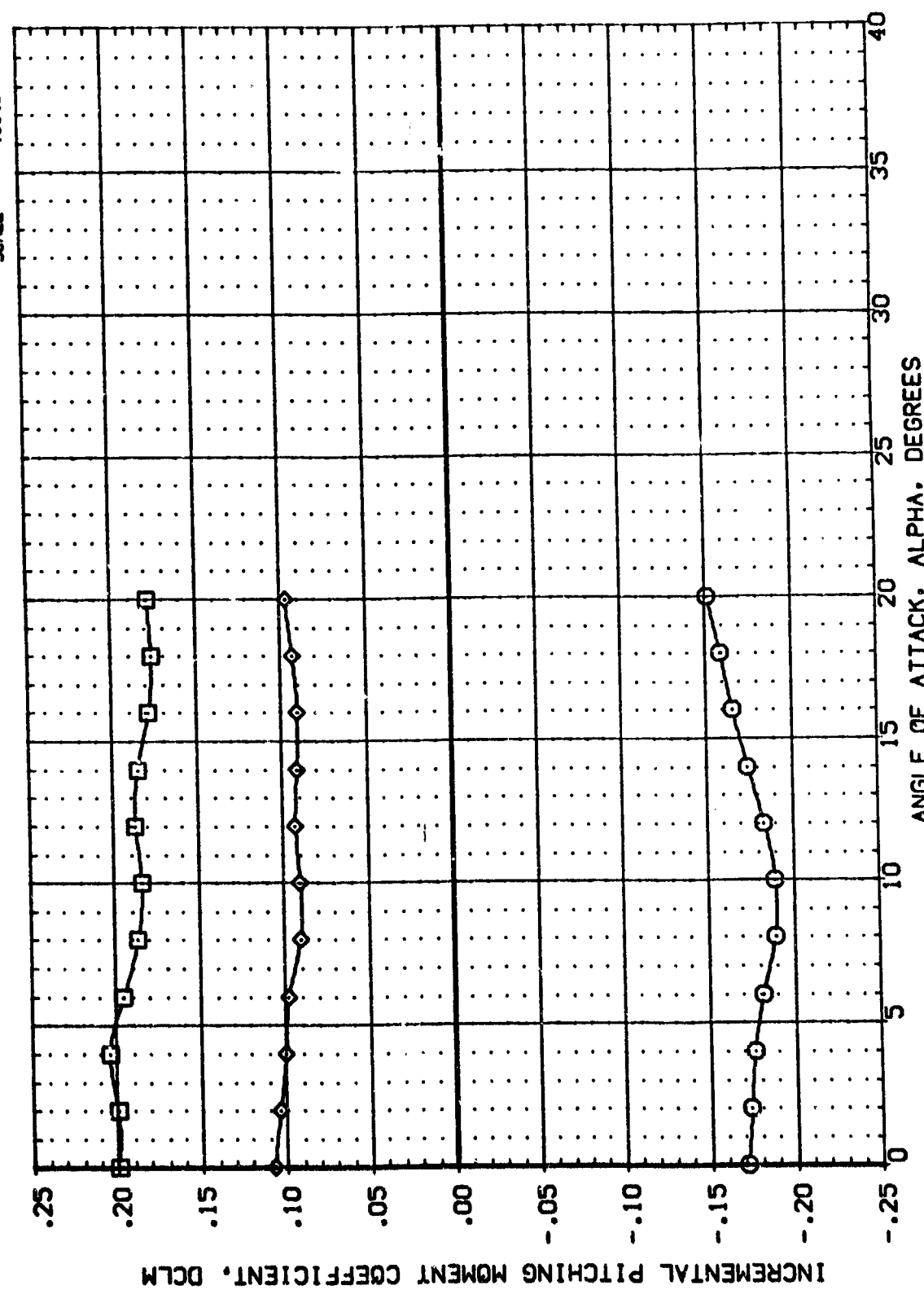


FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139B WITH ALT. NOSE

(C)MACH = 1.20

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DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087538) HSC 574(0A48) ORB 1398 V/ALT NOSE
 (087542) HSC 574(0A48) ORB 1398 V/ALT NOSE
 (287540) HSC 574(0A48) ORB 1398 V/ALT NOSE

BETA DE DBF
 .000 15.000 13.750
 .000 -40.000 -14.250
 .000 -20.000 .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BRREF 936.7000 IN.
 XWRP 838.7000 IN.
 YWRP .0000 IN.
 ZWRP .0000 IN.
 SCALE .0040

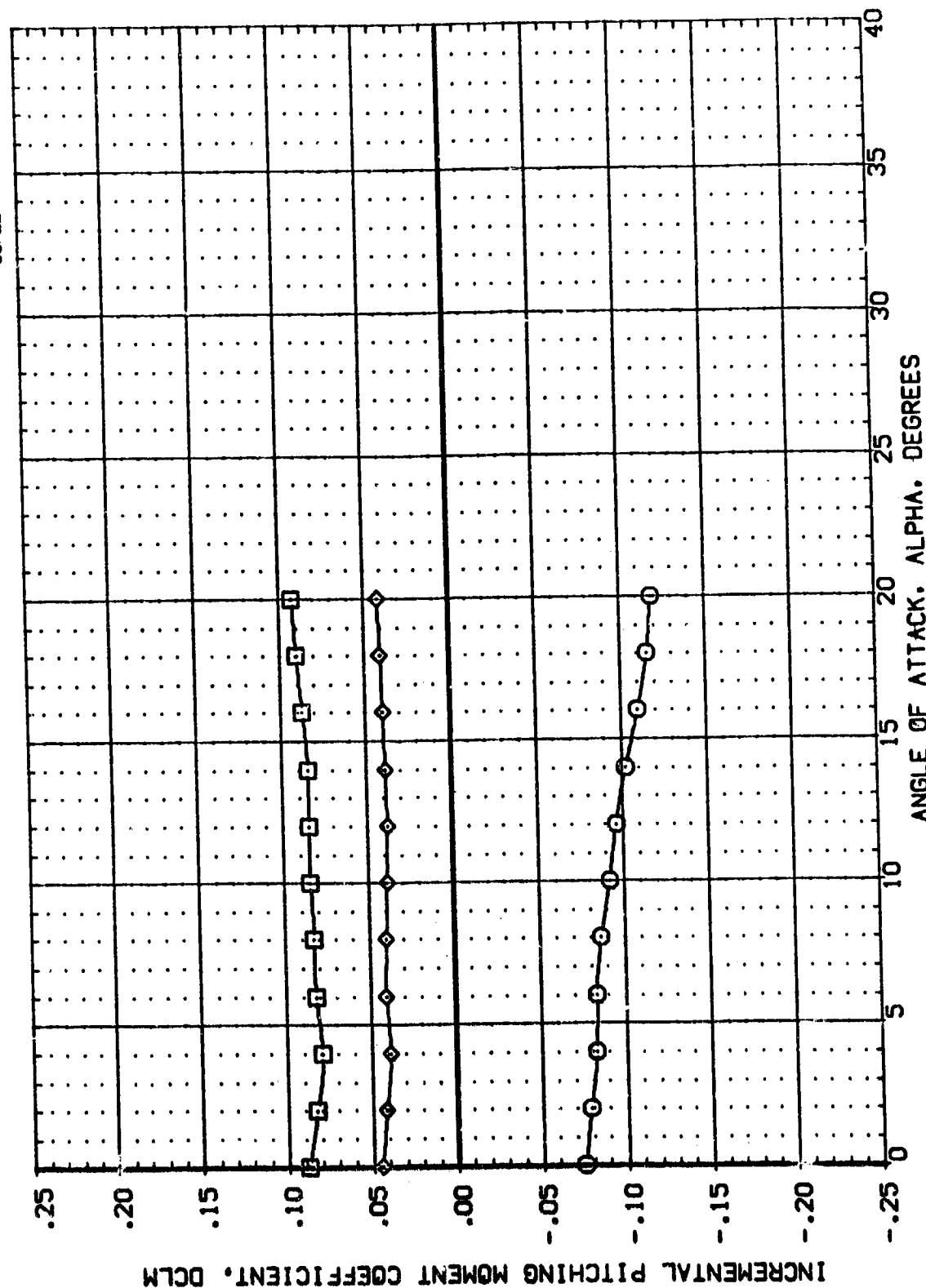


FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 1398 WITH ALT. NOSE
 (D)MACH = 1.96
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DATA SET SYMBOL: (087S38) (087S42) (287S40)
 CONFIGURATION DESCRIPTION: MSFC 574(0448) ORB 1398 V/ALT NOSE MSFC 574(0448) ORB 1398 V/ALT NOSE MSFC 574(0448) ORB 1398 V/ALT NOSE
 BETA: .000 .000 .000
 DE: 15.000 -10.000 -20.000
 DBF: 13.750 -14.250 .000
 REFERENCE INFORMATION: SREF 2690.0000 SQ.FT. LREF 474.8000 IN. BREF 936.7000 IN. XMRP 838.7000 IN. YMRP .0000 IN. ZMRP .0000 IN. SCALE .0040

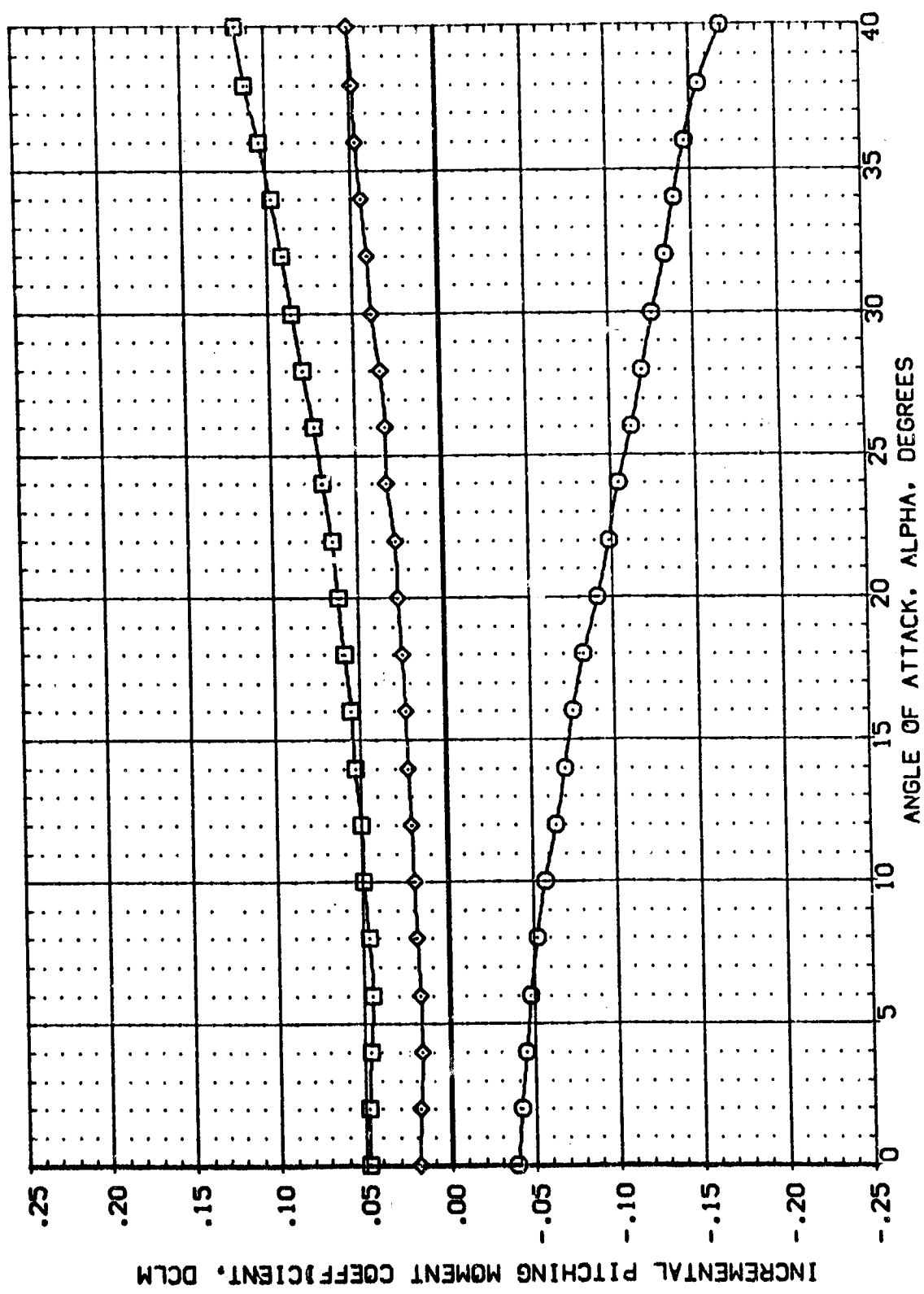


FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 1398 WITH ALT. NOSE

(E)MACH = 2.99

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		BETA		DE		DBF		REFERENCE INFORMATION	
(087536)	MSFC 574(0A48)	ORB 139B	V/ALT NOSE	.000	15.000	13.750	SREF	2690.0000	50. FT.		
(087542)	MSFC 574(0A48)	ORB 139B	V/ALT NOSE	.000	-40.000	-14.750	LREF	474.8000	IN.		
(Z87540)	MSFC 574(0A48)	ORB 139B	V/ALT NOSE	.000	-20.000	.000	BREF	938.7000	IN.		
							YPRP	838.7000	IN.		
							ZPRP	.0000	IN.		
							SCALE	.0040	IN.		

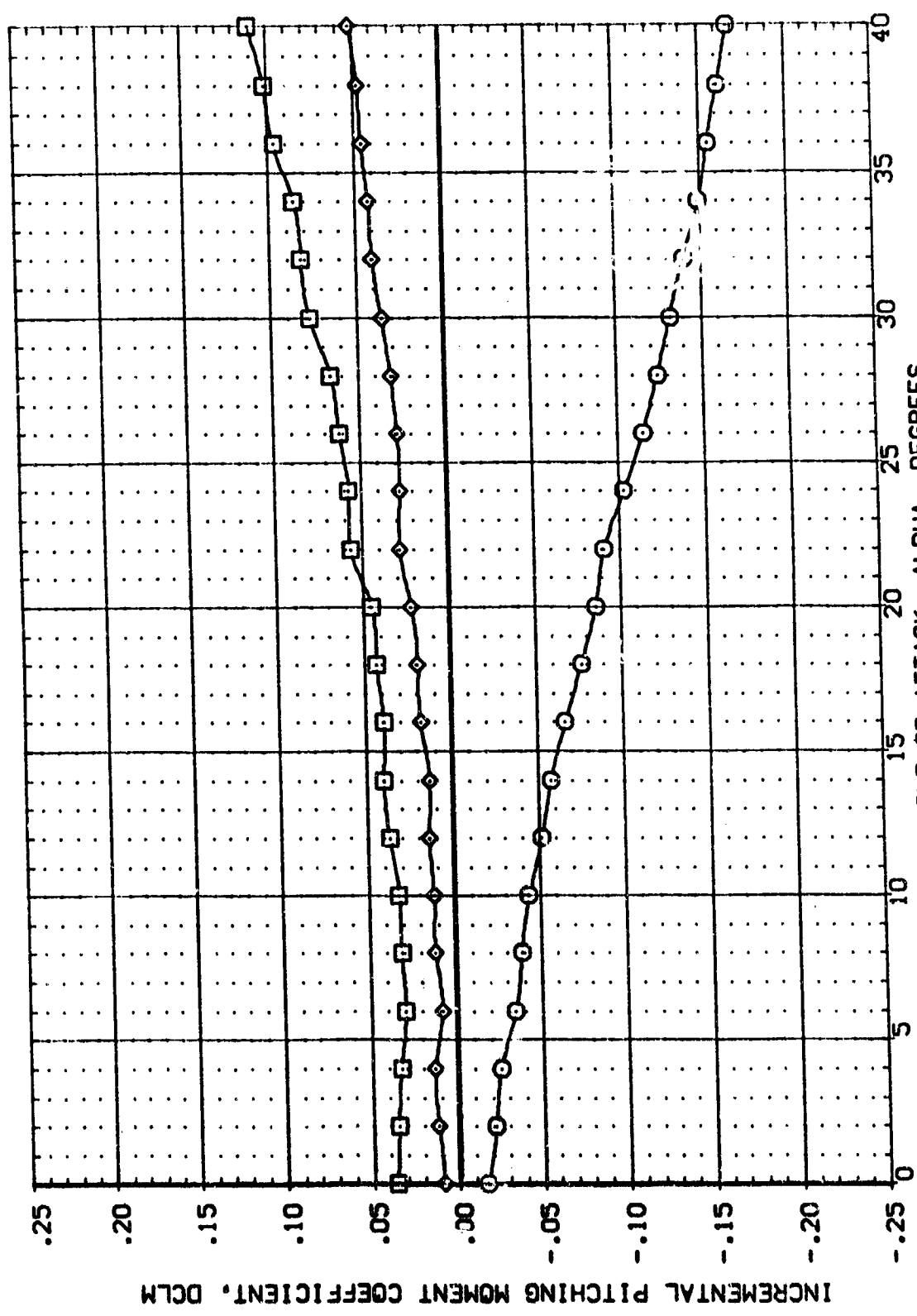


FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139B WITH ALT. NOSE
 (F)MACH = 4.96
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REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XMRP 838.7000 IN.
 YMRP .0000 IN.
 ZMRP .0000 IN.
 SCALE .0040

BETA DE DBF
 .000 15.000 13.750
 .000 -10.000 -14.250
 .000 -20.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087S38) HSC 574(0448) ORB 139B V/ALT NOSE
 (087S42) HSC 574(0448) ORB 139B V/ALT NOSE
 (287S40) HSC 574(0448) ORB 139B V/ALT NOSE

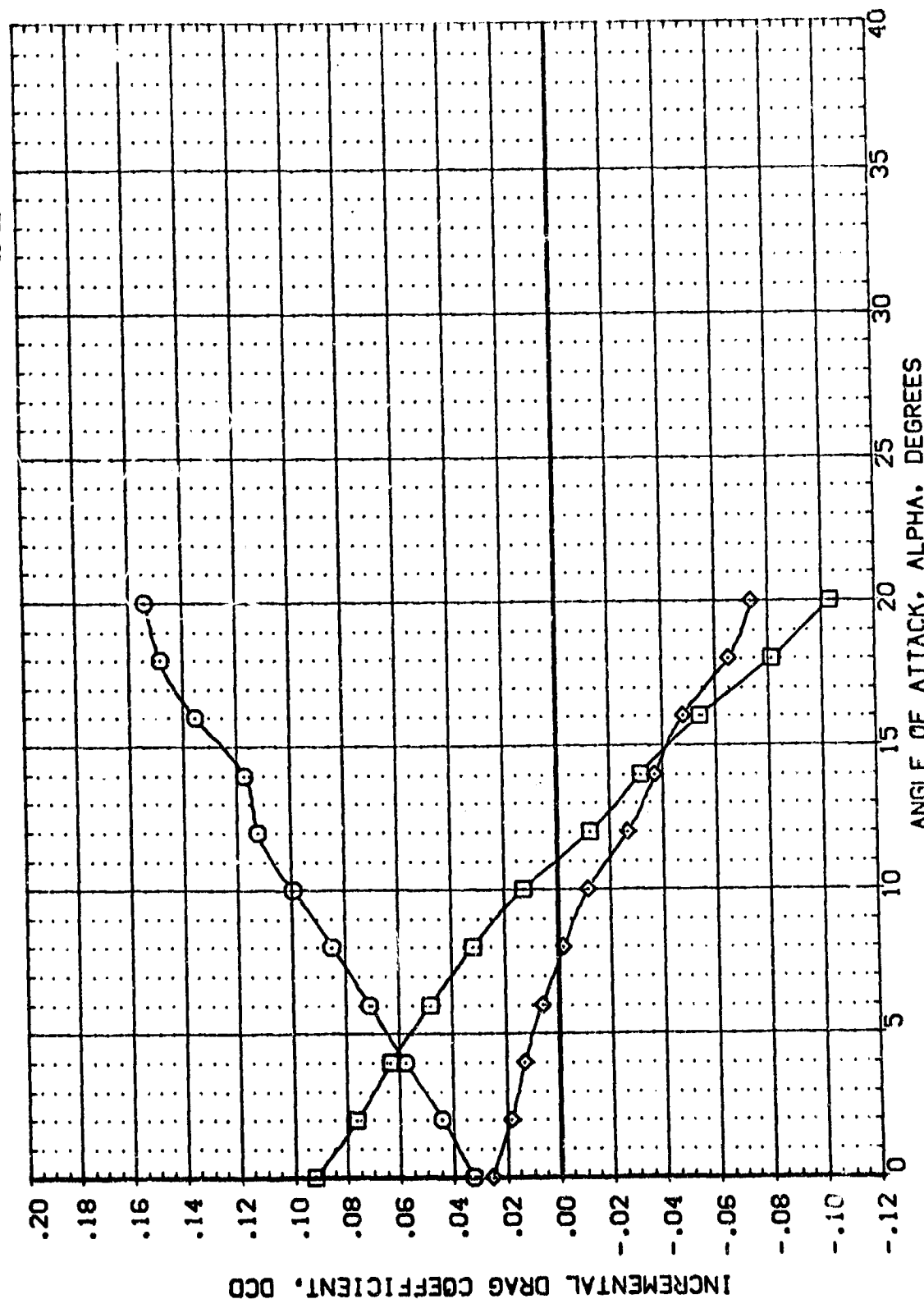


FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139B WITH ALT. NOSE
 (A)MACH = .60

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 938.7000 IN.
 XGRP 838.7000 IN.
 YGRP .0000 IN.
 ZGRP .0000 IN.
 SCALE .0010

BETA DE DBF
 .000 15.000 13.750
 .000 -40.000 -14.250
 .000 -20.000 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087538) MSFC 574(0A48) ORB 1398 V/ALT NOSE
 (087542) MSFC 574(0A48) ORB 1398 V/ALT NOSE
 (287540) MSFC 574(0A48) ORB 1398 V/ALT NOSE

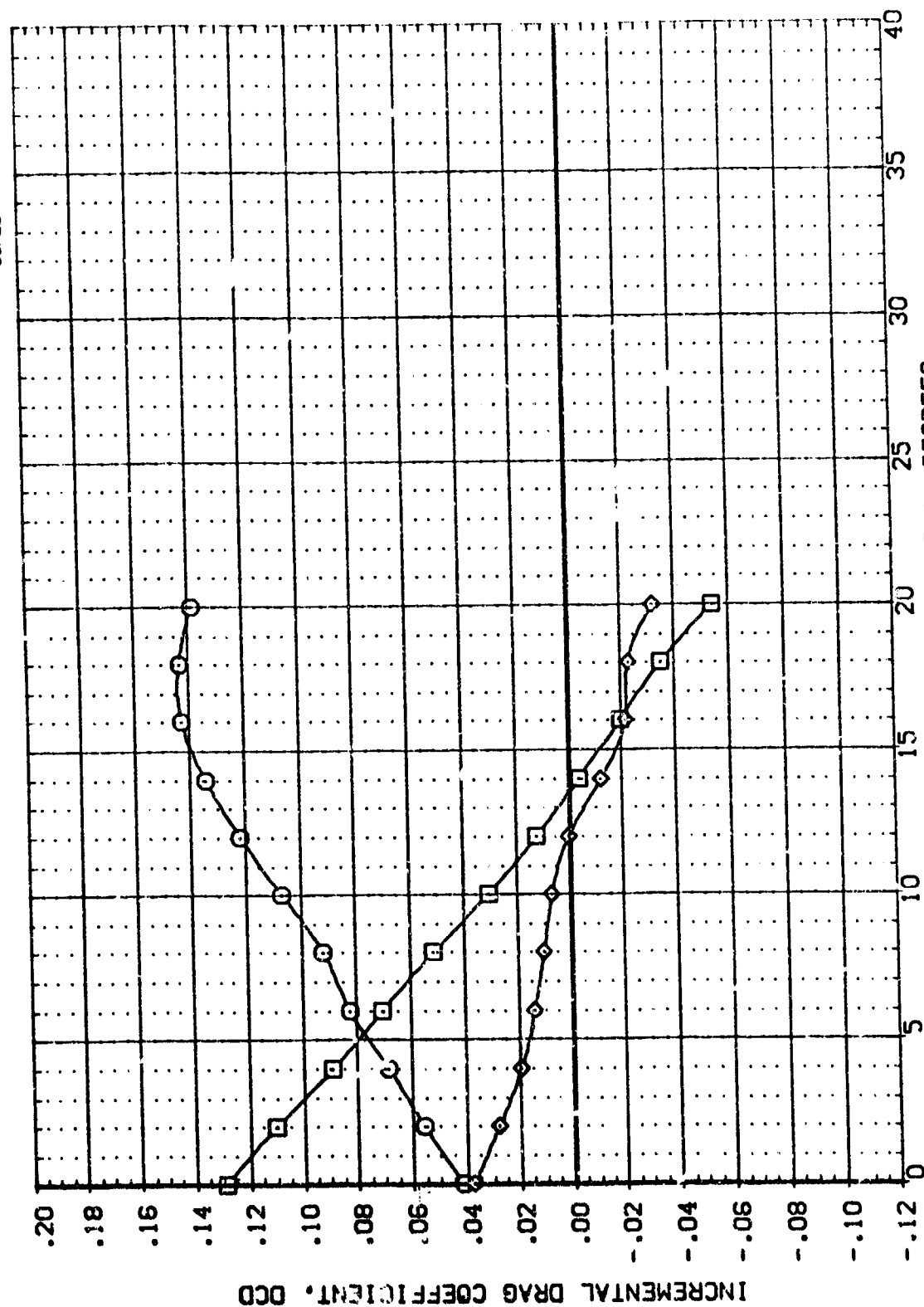
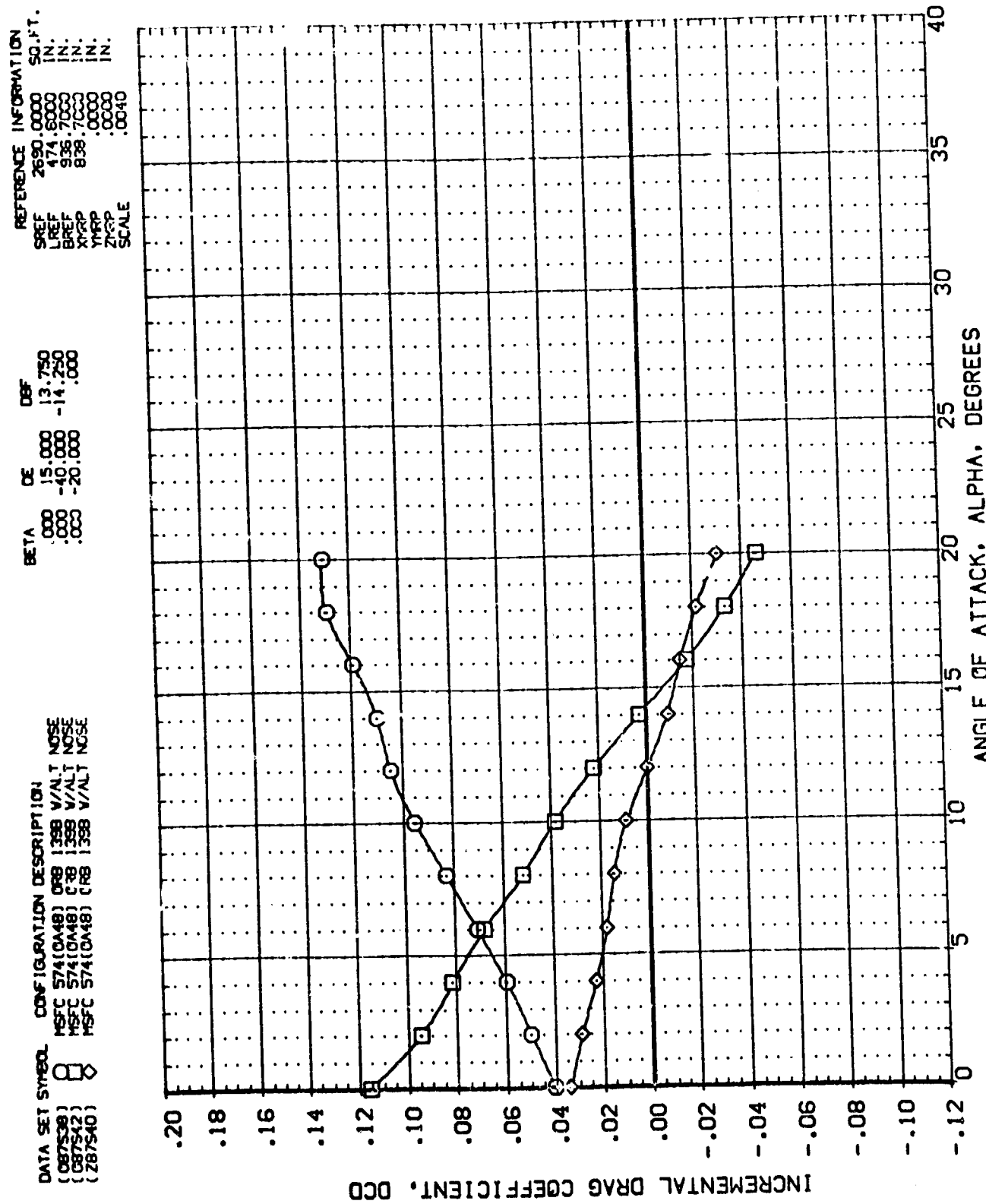


FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 1398 WITH ALT. NOSE
 (B)MACH = .90 PAGE 1476


$$[C]_{MACH} = 1.20$$

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		BETA		DE		DBF		REFERENCE INFORMATION	
(087S38)	MSFC 574(CA48)	ORB 1398	V/ALT NOSE	.000	15.000	.000	13.750	SREF	2690.0000	50.FT.	
(087S42)	MSFC 574(DA48)	ORB 1398	V/ALT NOSE	.000	-40.000	.000	-14.250	LREF	474.8000	IN.	
(287S40)	MSFC 574(DA48)	ORB 1398	V/ALT NOSE	.000	-20.000	.000	.000	BREF	936.7000	IN.	
								XREF	838.7000	IN.	
								YREF	.0000	IN.	
								ZREF	.0000	IN.	
								SCALE	.0040		

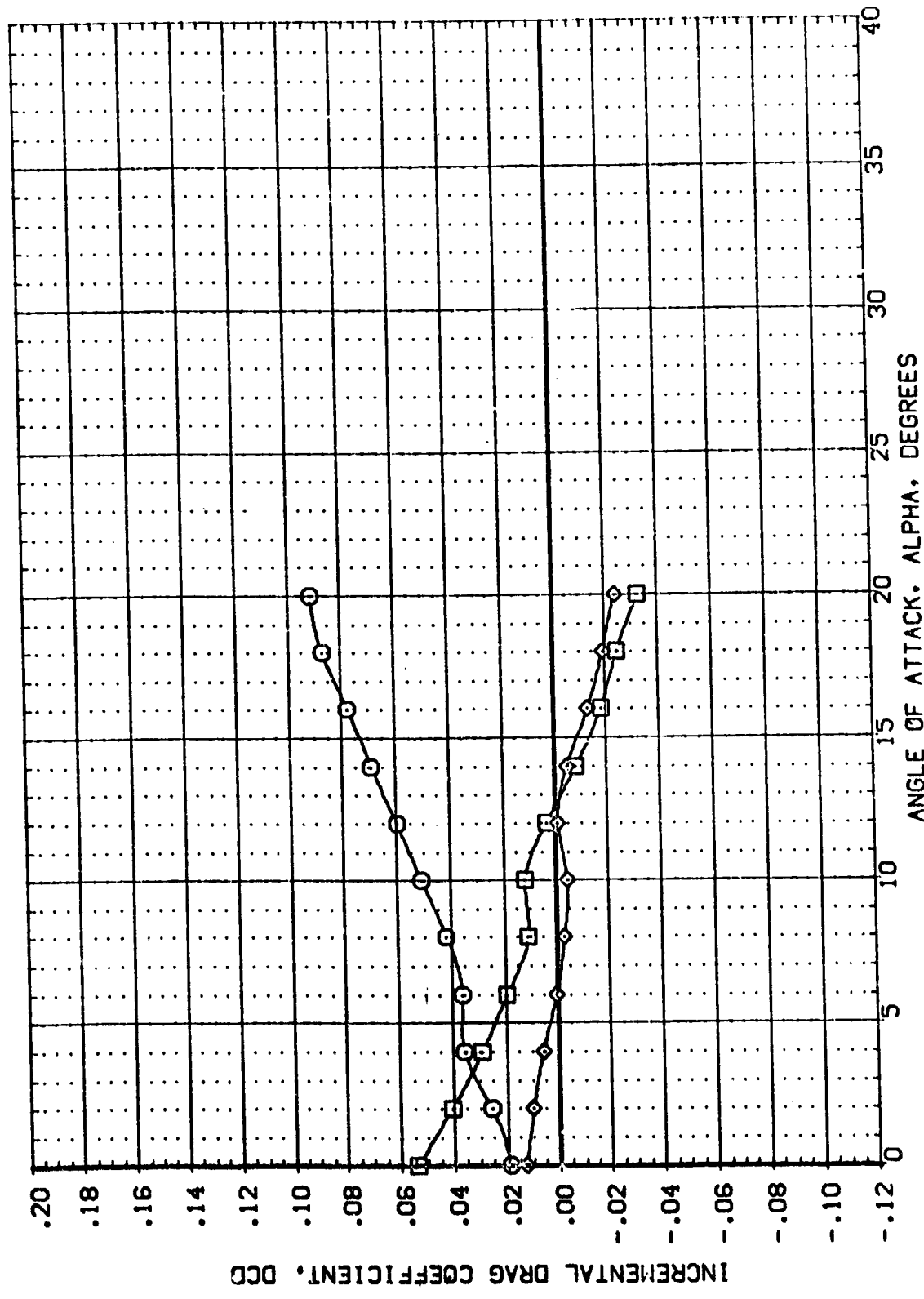


FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 1398 WITH ALT. NOSE
 (CD)MACH = 1.96
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DATA SET SYMBOL CONFIGURATION DESCRIPTION

(087S38) MSFC 574(0448) ORB 1398 V/ALT NOSE

(087S42) MSFC 574(0448) ORB 1398 V/ALT NOSE

(287S40) MSFC 574(0448) ORB 1398 V/ALT NOSE

BETA DE DBF

.000 15.000 13.750

.000 -40.000 -14.250

.000 -20.000 .000

REFERENCE INFORMATION

SREF 2690.0000 SQ.FT.

LREF 474.8000 IN.

BREF 536.7000 IN.

XREF 938.7000 IN.

YREF .0000 IN.

ZREF .0000 IN.

SCALE .0040

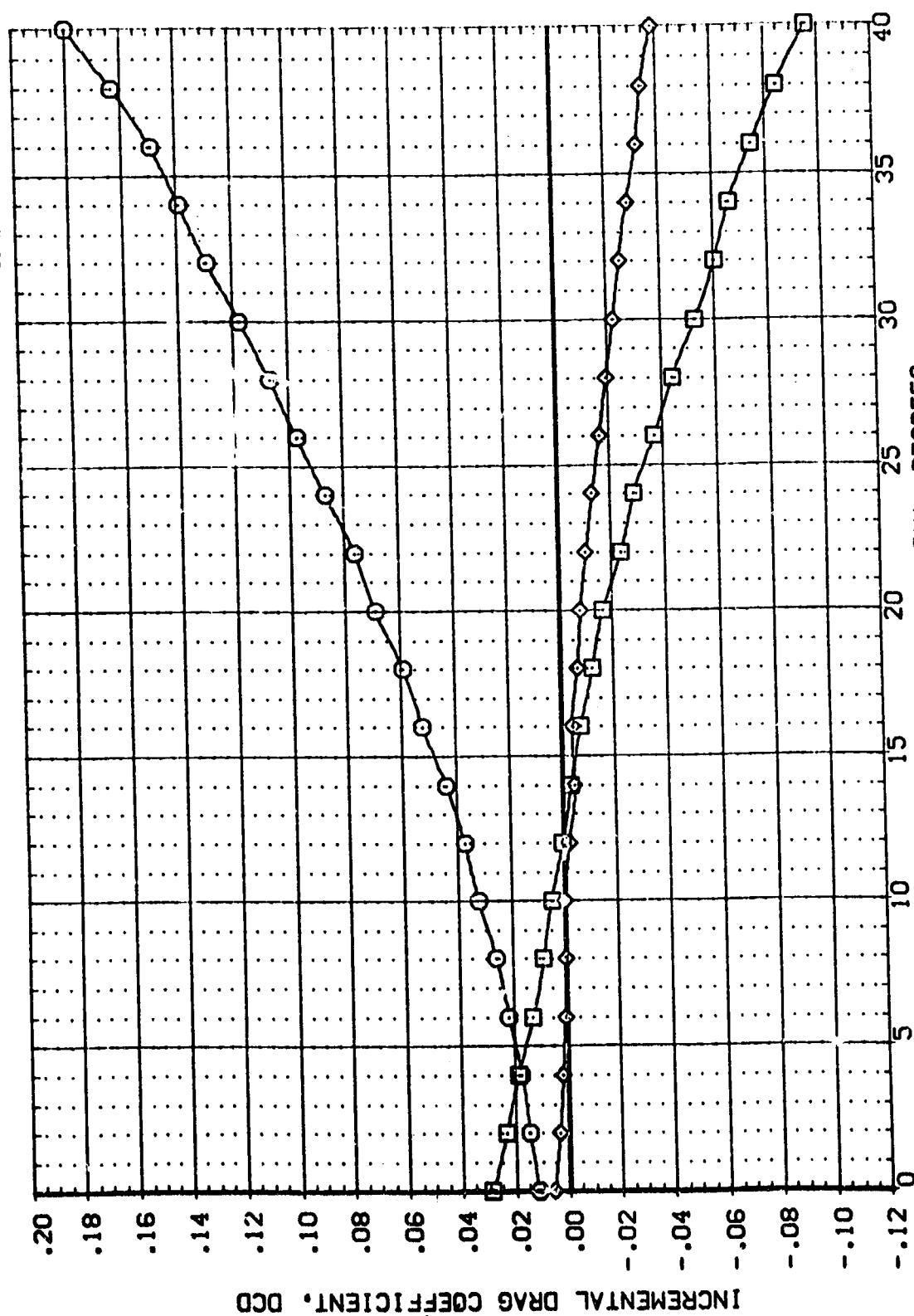


FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 1398 WITH ALT. NOSE

(E)MACH = 2.99

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XMRP 838.7000 IN.
 YMRP .0000 IN.
 ZMRP .0000 IN.
 SCALE .0040

BETA DE DBF
 .000 15.000 13.750
 .000 -40.000 -14.250
 .000 -20.000 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087538) MSFC 574(DA48) ORB 1398 V/ALT NOSE
 (087542) MSFC 574(DA48) ORB 1398 V/ALT NOSE
 (287540) MSFC 574(DA48) ORB 1398 V/ALT NOSE

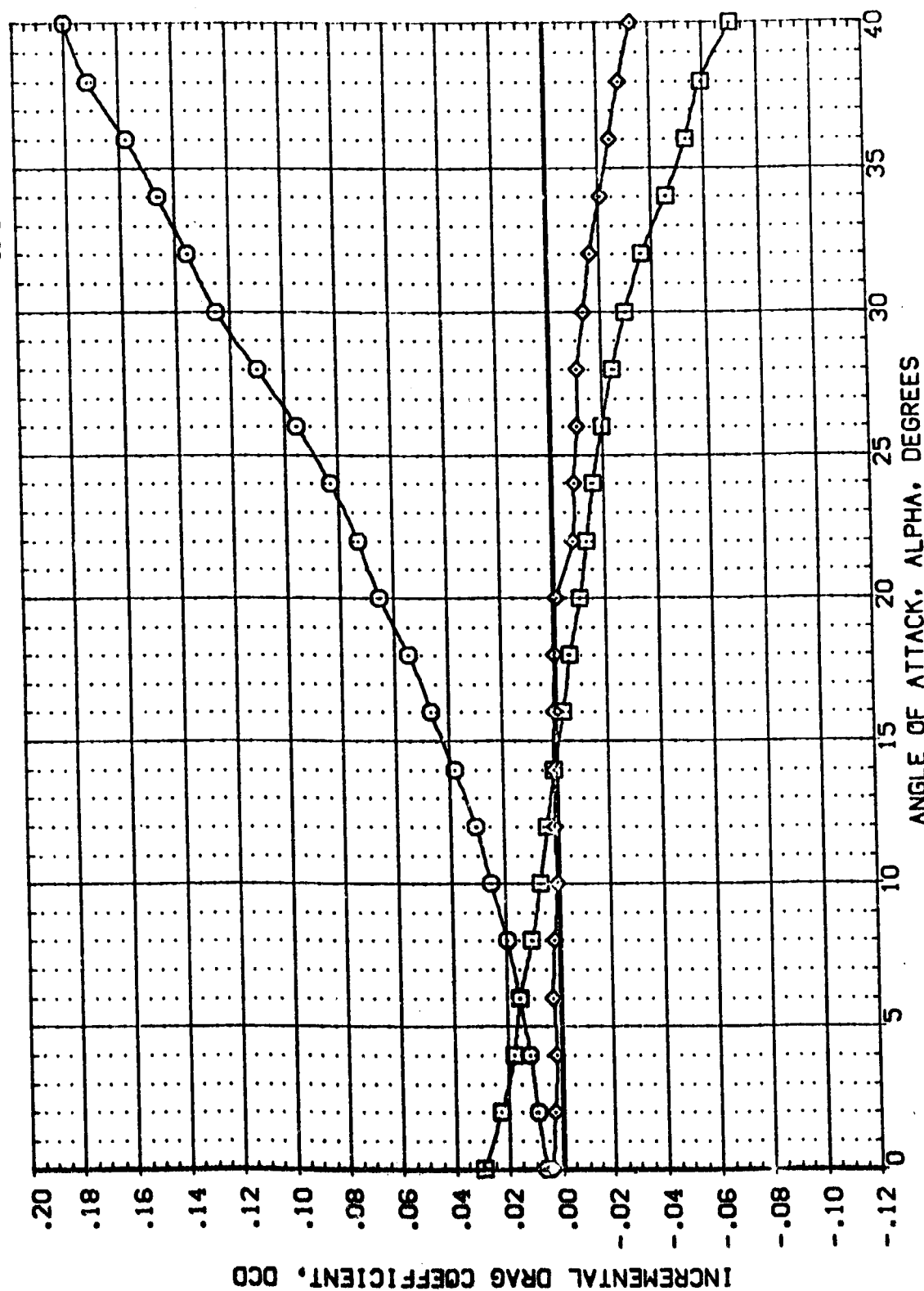


FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 1398 WITH ALT. NOSE
 (F)MACH = 4.96
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REFERENCE INFORMATION

SREF	2690.0000	SO.FT.
LREF	474.8000	IN.
BREF	936.7000	IN.
XTRP	838.7000	IN.
YTRP	.0000	IN.
ZTRP	.0000	IN.
SCALE	.0040	

BETA DE DBF

.000	15.000	13.750
.000	-40.000	-14.250
.000	-20.000	.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(087538)	MSFC 574(DA48) ORB 1398 V/ALT NOSE
(087542)	MSFC 574(DA48) ORB 1398 V/ALT NOSE
(287540)	MSFC 574(DA48) ORB 1398 V/ALT NOSE

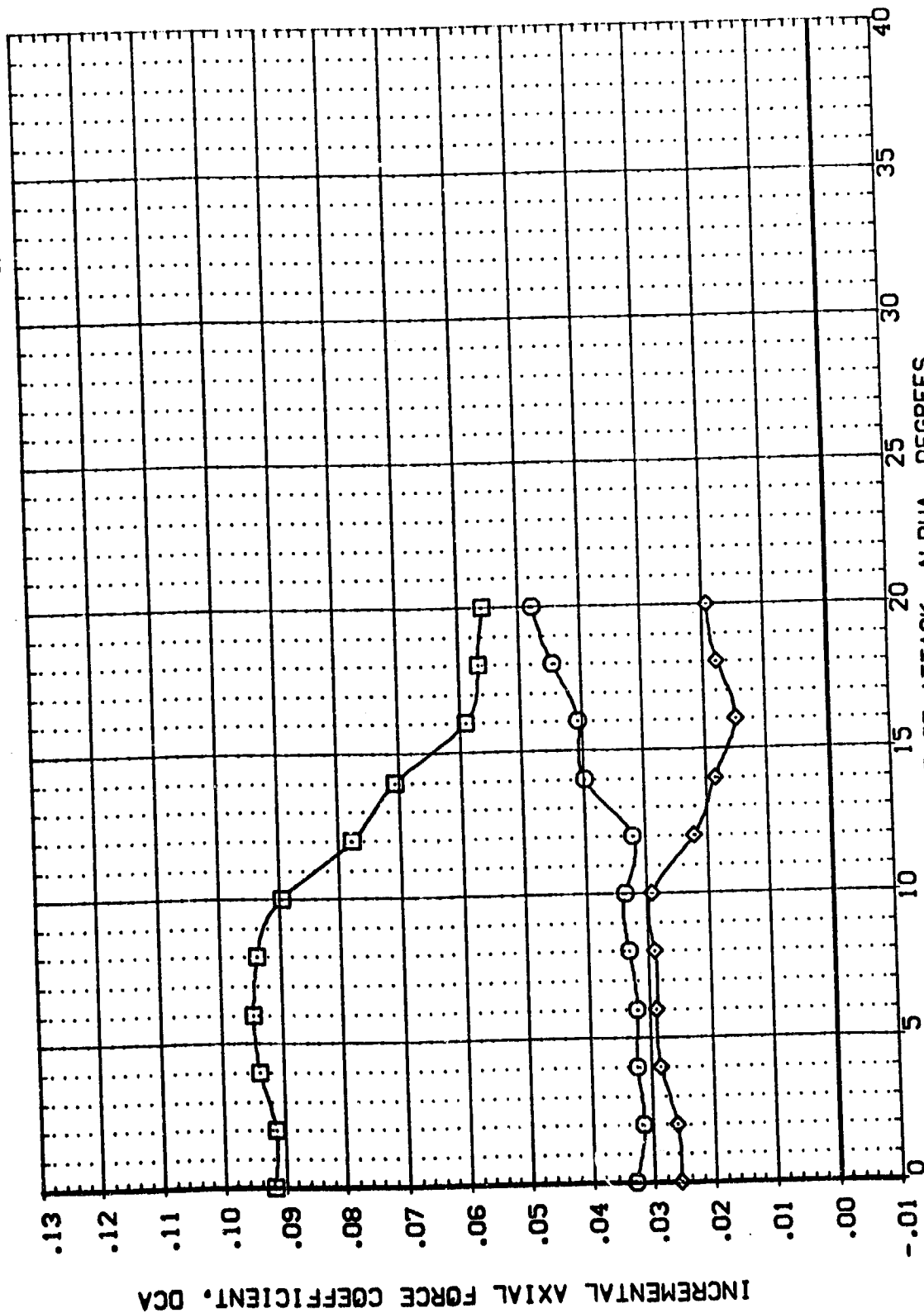


FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 1398 WITH ALT. NOSE
 (A)MACH = .60

REFERENCE INFORMATION

SREF	2690.0000	50.FT.
LREF	474.8000	IN.
BREF	935.7000	IN.
XMRP	838.7000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0010	

BETA DE DBF

.000	15.000	13.750
.000	-40.000	-14.250
.000	-20.000	.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(087538)	MSFC 574 (0A48) ORB 1398 V/ALT NOSE
(087542)	MSFC 574 (0A48) ORB 1398 V/ALT NOSE
(287540)	MSFC 574 (0A48) ORB 1398 V/ALT NOSE

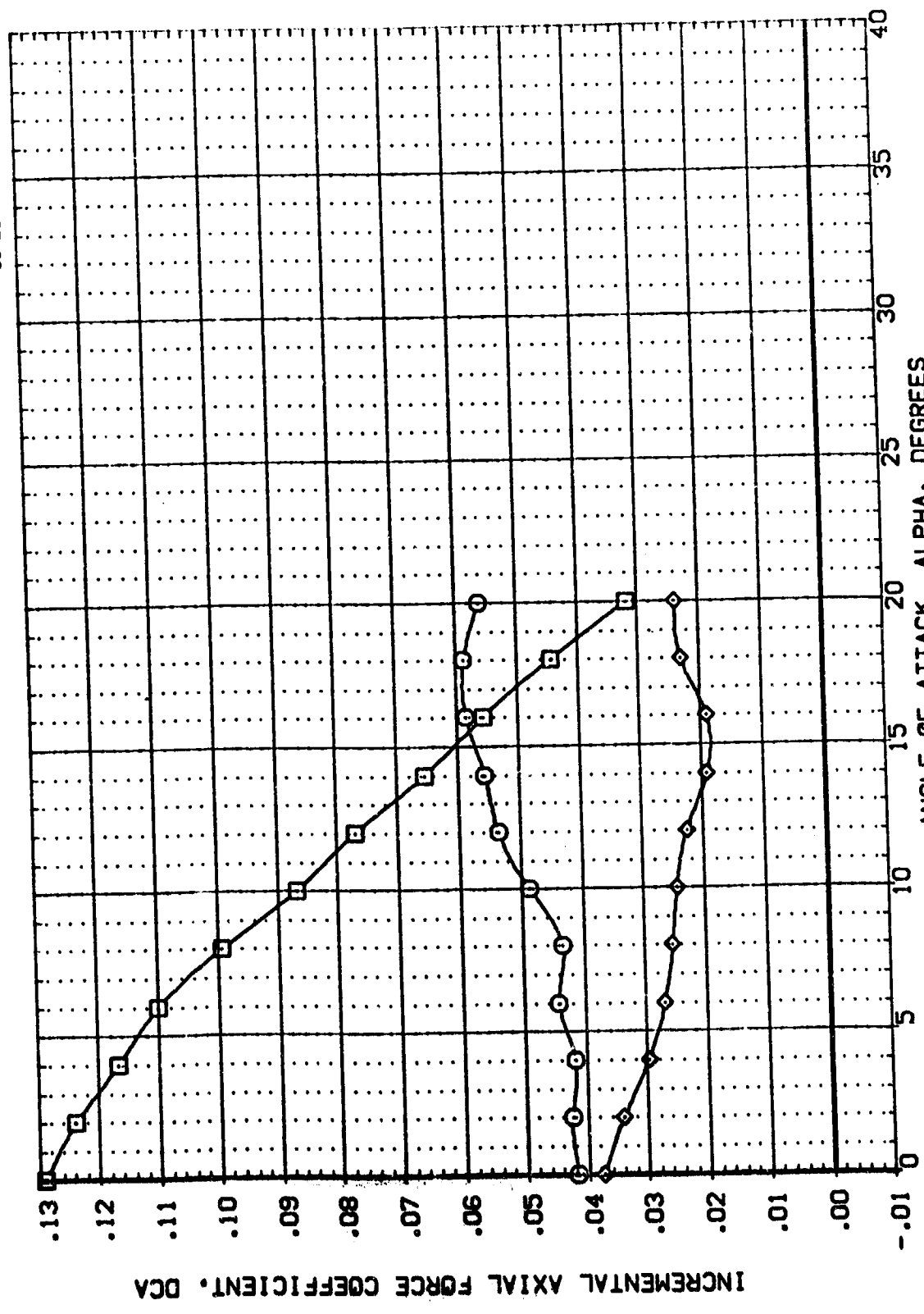


FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 1398 WITH ALT. NOSE
 (B)MACH = .90
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DATA SET SYMBOL. CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(087538)	MSFC 574(0A48) ORB 139B V/ALT NOSE
(087542)	MSFC 574(0A48) ORB 139B V/ALT NOSE
(087540)	MSFC 574(0A48) ORB 139B V/ALT NOSE

BETA DE DBF

BETA	DE	DBF
.000	15.000	13.750
.000	-40.000	-14.250
.000	-20.000	.000

REFERENCE INFORMATION

REFERENCE INFORMATION	SO. FT.
SREF	2690.0000
LREF	474.8000
BREF	936.7000
XMRP	838.7000
YMRP	.0000
ZMRP	.0000
SCALE	.0040

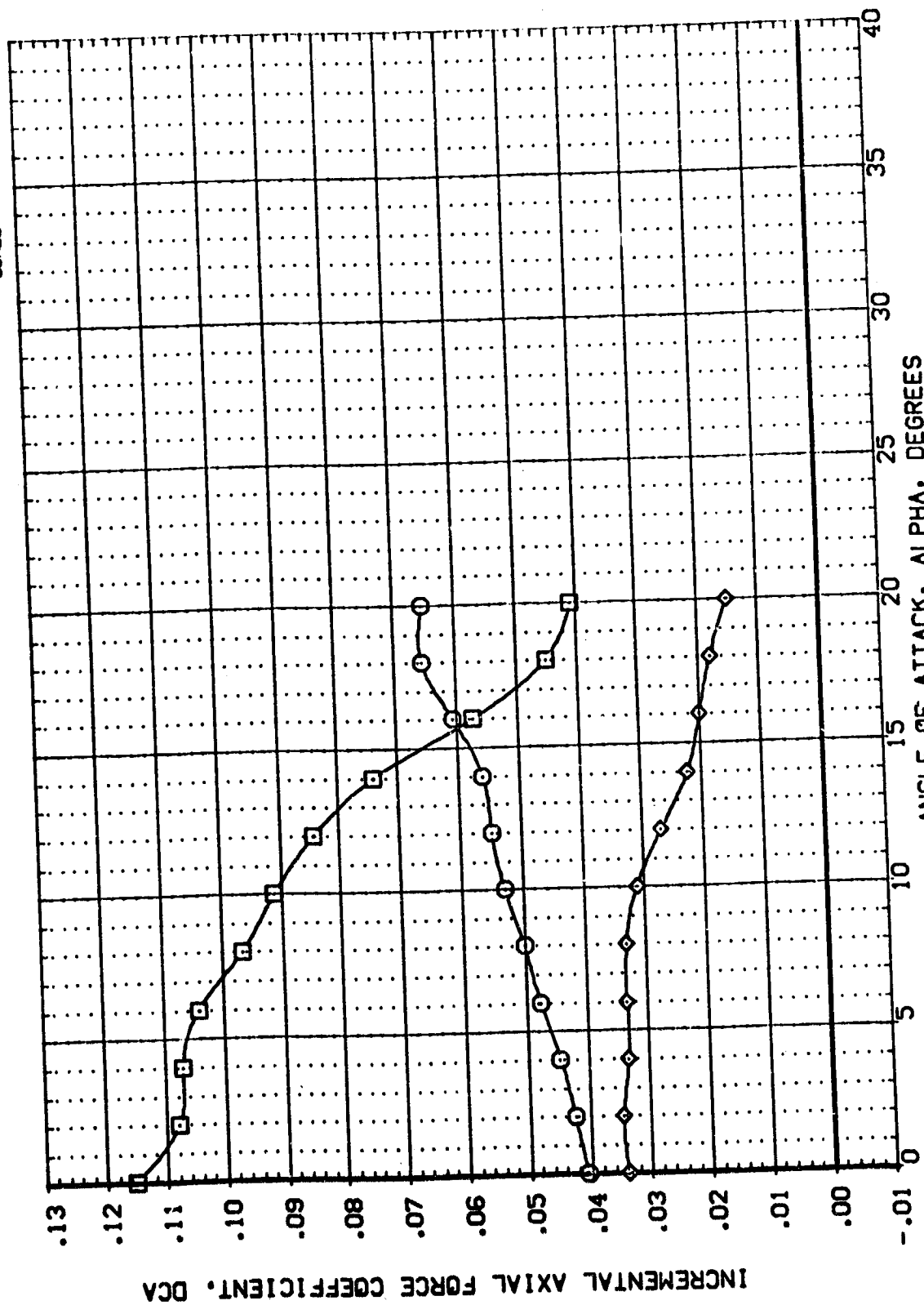


FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139B WITH ALT. NOSE

(C)MACH = 1.20

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REFERENCE INFORMATION

SREF	2690.0000	SO.FT.
LREF	474.8000	IN.
BREF	936.7000	IN.
XMRP	838.7000	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0040	

BETA DE DBF

0.000	15.000	13.750
0.000	-40.000	-14.250
0.000	-20.000	0.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(087538)	MSFC 574(0A48) ORB 139B V/ALT NOSE
(087542)	MSFC 574(0A48) ORB 139B V/ALT NOSE
(287540)	MSFC 574(0A48) ORB 139B V/ALT NOSE

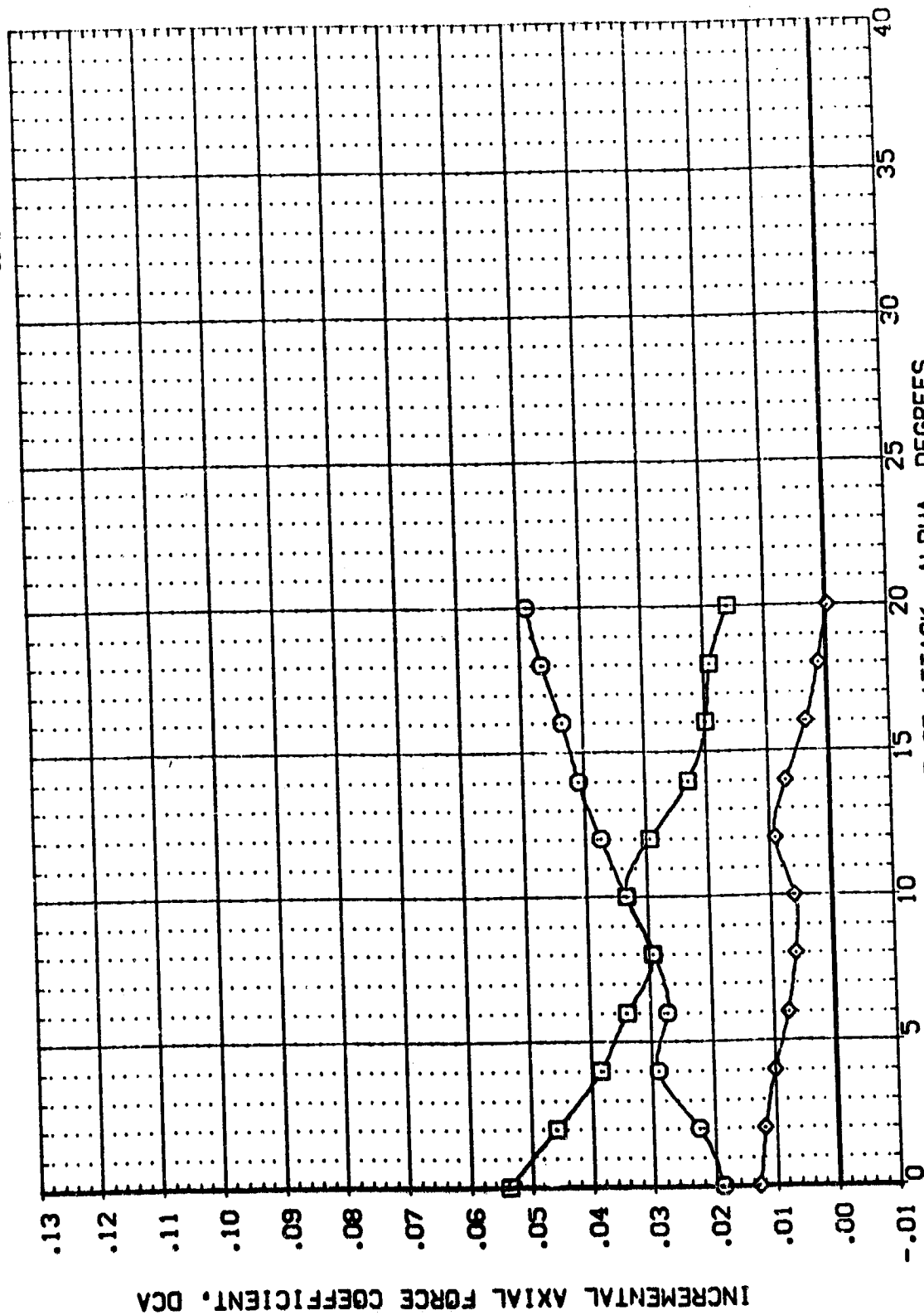


FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139B WITH ALT. NOSE
(D)MACH = 1.96

REFERENCE INFORMATION

SREF	2690.0000	SO.FT.
LREF	474.6000	IN.
BREF	935.7000	IN.
XPRP	838	IN.
YPRP	.0000	IN.
ZPRP	.0000	IN.
SCALE	.0040	

BETA DE DBF

.000	15.000	13.750
.000	-40.000	-14.250
.000	-20.000	.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION

MSFC 574(0A18)	ORB 139B	V/ALT NOSE
MSFC 574(0A18)	ORB 139B	V/ALT NOSE
MSFC 574(0A18)	ORB 139B	V/ALT NOSE

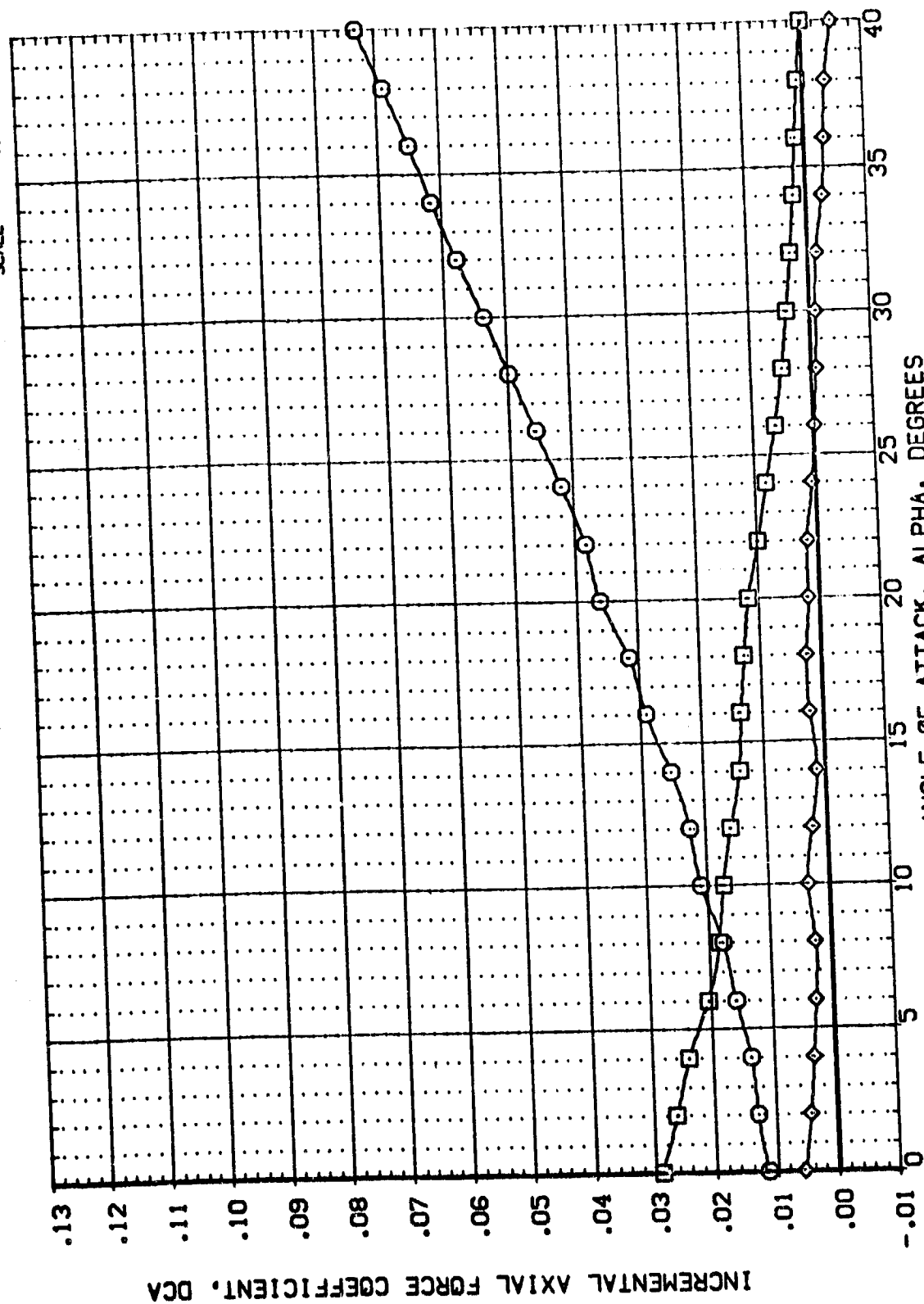


FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139B WITH ALT. NOSE

(E)MACH = 2.99

DATA SET SYMBOL: (087538) (087542) (087540)

CONFIGURATION DESCRIPTION: MSFC 574(0A48) ORB 1398 V/ALT NOSE MSFC 574(0A48) ORB 1398 V/ALT NOSE MSFC 574(0A48) ORB 1398 V/ALT NOSE

BETA: .000 DE 15.000 DBF 13.750 .000 -40.000 .000 -20.000

REFERENCE INFORMATION: SREF 2690.0000 SQ.FT. LREF 474.8000 IN. BREF 938.7000 IN. XMRP 838.7000 IN. YMRP .0000 IN. ZMRP .0000 IN. SCALE .0040

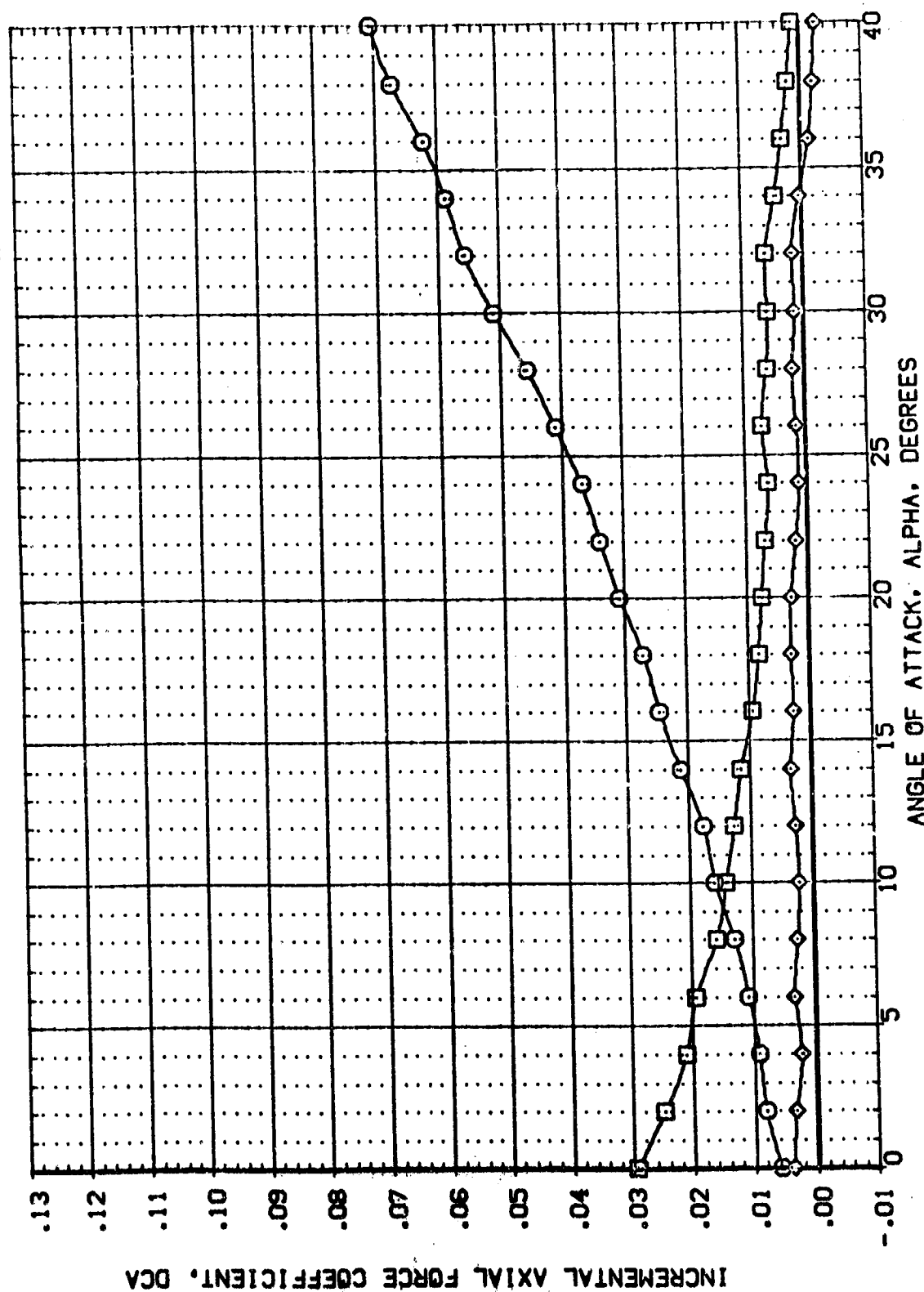


FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 1398 WITH ALT. NOSE
(F)MACH = 4.96
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REFERENCE INFORMATION
 SREF 2650.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XMRP 838.7000 IN.
 YMRP 0000 IN.
 ZMRP 0000 IN.
 SCALE 0040

BETA DE DBF
 .000 15.000 13.750
 .070 -10.000 -14.250
 .000 -20.000 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087538) MSFC 574(0M48) ORB 1398 V/ALT NOSE
 (087542) MSFC 574(0M48) ORB 1398 V/ALT NOSE
 (287540) MSFC 574(0M48) ORB 1398 V/ALT NOSE

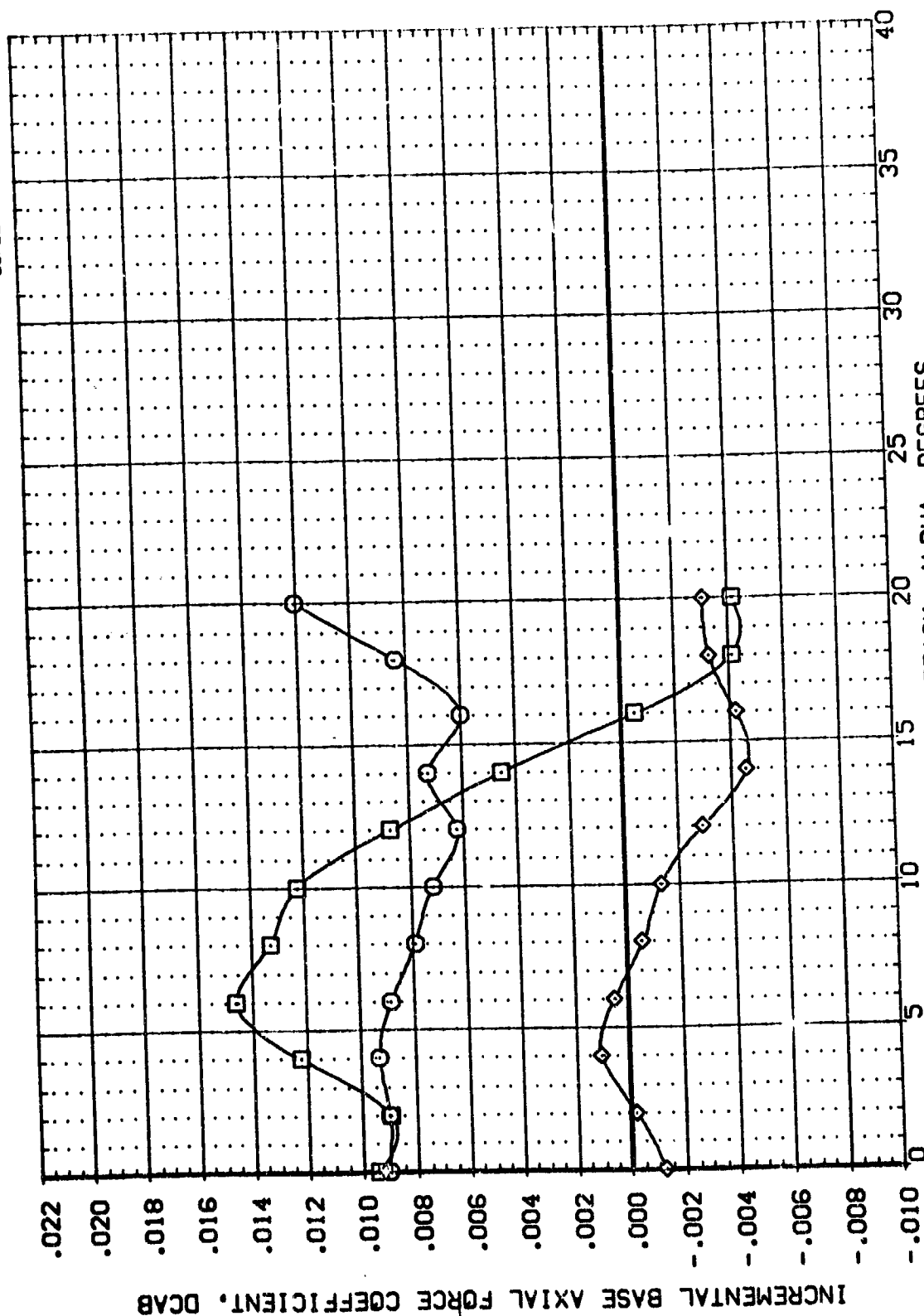


FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 1398 WITH ALT. NOSE
 (A)MACH = .60

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	DBF	REFERENCE INFORMATION
(087538)	MSFC 574(OA48) ORB 139B V/ALT NOSE	.000	15.000	13.750	SREF 2690.0000 SQ.FT.
(087542)	MSFC 574(OA48) ORB 139B V/ALT NOSE	.000	-40.000	-14.250	LREF 474.8000 IN.
(287540)	MSFC 574(OA48) ORB 139B V/ALT NOSE	.000	-20.000	.000	BREF 936.7000 IN.
					XREF 838.7000 IN.
					YREF .0000 IN.
					ZREF .0000 IN.
					SCALE .0010

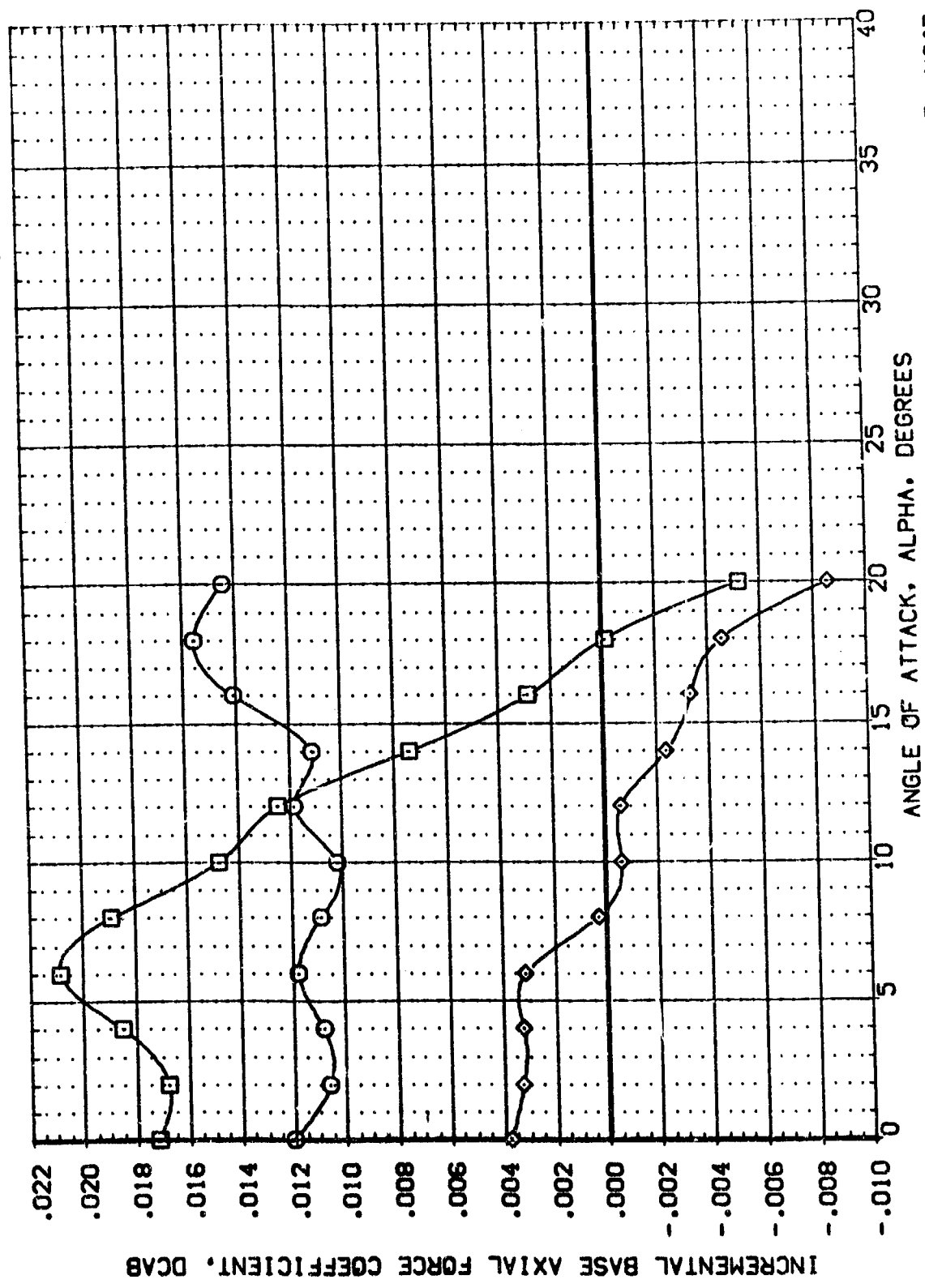


FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139B WITH ALT. NOSE
 (B)MACH = .90
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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	DBF	REFERENCE INFORMATION
(087538)	MSFC 574(0A48) ORB 139B V/ALT NOSE	.000	15.000	13.750	SREF 2690.0000 SQ.FT.
(087542)	MSFC 574(0A48) ORB 139B V/ALT NOSE	.000	-10.000	-14.250	LREF 474.8000 IN.
(287540)	MSFC 574(0A48) ORB 139B V/ALT NOSE	.000	-20.000	.000	BREF 936.7000 IN.
					XPRP 838.7000 IN.
					YPRP .0000 IN.
					ZPRP .0000 IN.
					SCALE .0040

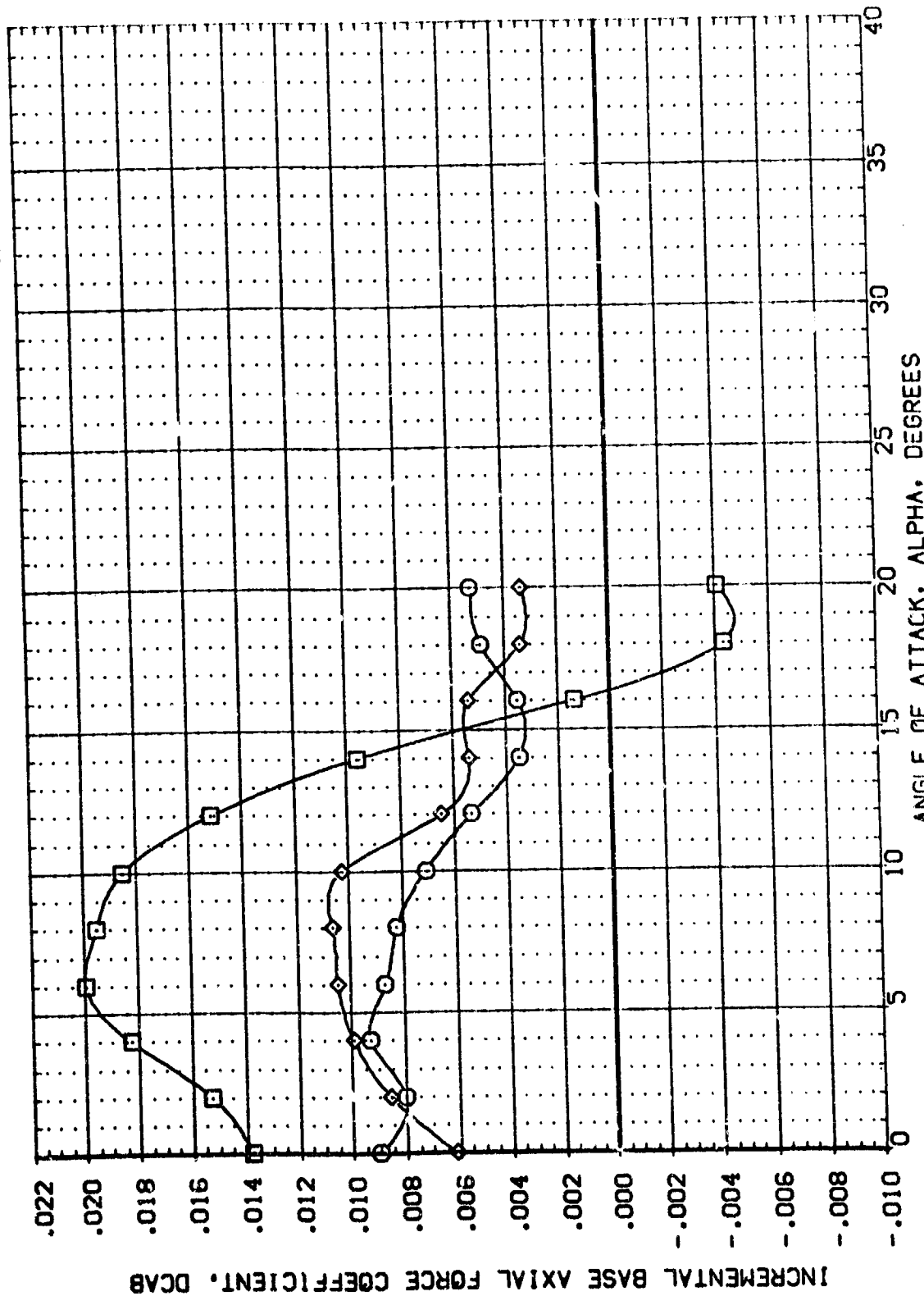
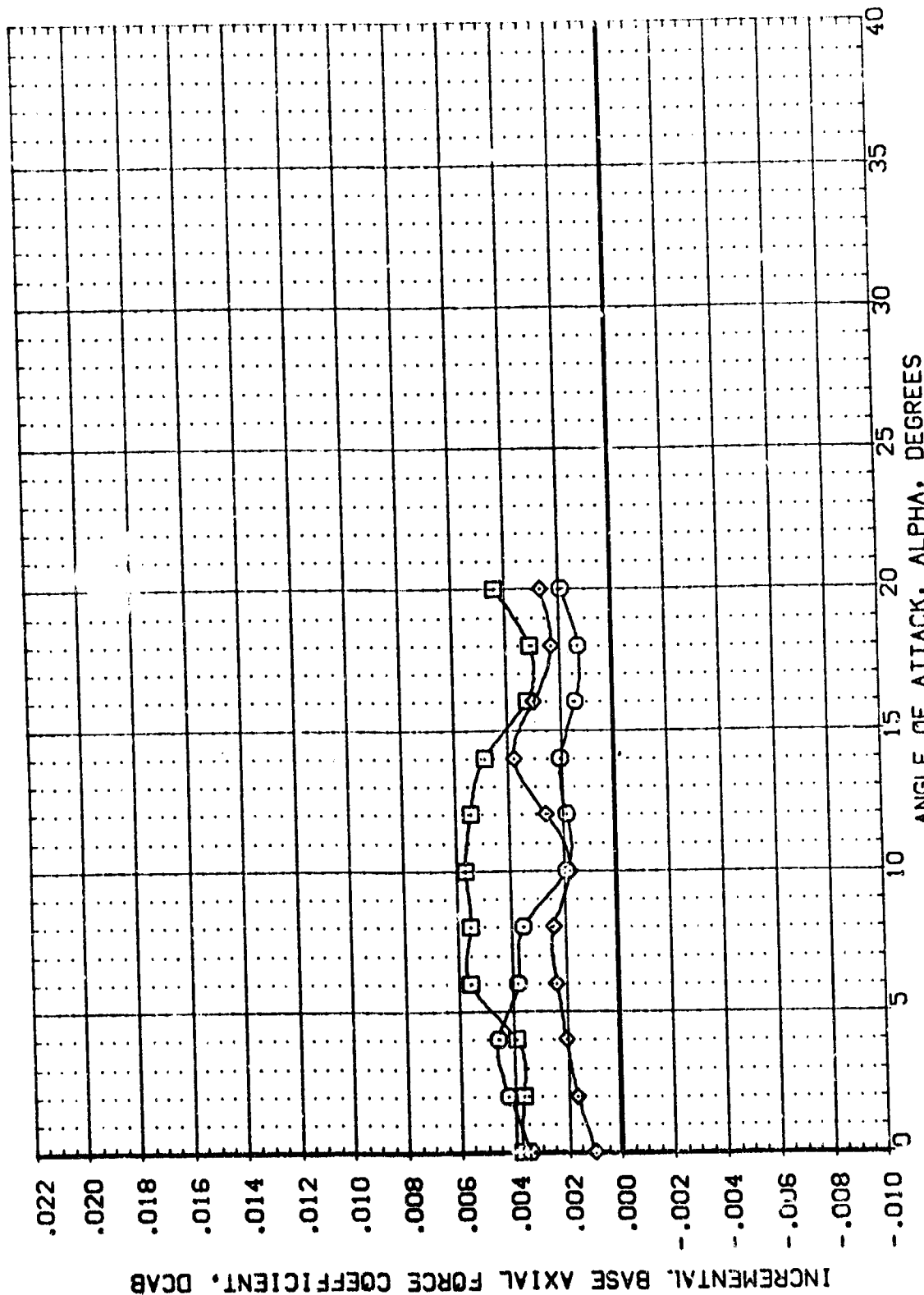


FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139B WITH ALT. NOSE
(C)MACH = 1.20

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 IN.
 BREF 935.7000 IN.
 XREF 838.7000 IN.
 YREF .0000 IN.
 ZREF .0000 IN.
 SCALE .0040

BETA DE DBF
 .000 15.000 13.750
 .000 -40.000 -14.250
 .000 -20.000 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087538) MSFC 574(0A48) CRB 1398 W/ALT NOSE
 (087542) MSFC 574(0A48) CRB 1398 W/ALT NOSE
 (Z87540) MSFC 574(0A48) CRB 1398 W/ALT NOSE



ANGLE OF ATTACK, ALPHA, DEGREES

FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 1398 WITH ALT. NOSE



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	DBF	REFERENCE INFORMATION
(087S38)	MSFC 574(0A48) ORB 139B V/ALT NOSE	.000	15.000	13.750	SREF 2690.0000 50.FT.
(087S42)	MSFC 574(0A48) ORB 139B V/ALT NOSE	.000	-40.000	-14.250	LREF 474.8000 IN.
(287S40)	MSFC 574(0A48) ORB 139B V/ALT NOSE	.000	-20.000	.000	BREF 936.7000 IN.
					XREF 838.7000 IN.
					YREF .0000 IN.
					ZREF .0000 IN.
					SCALE .0040

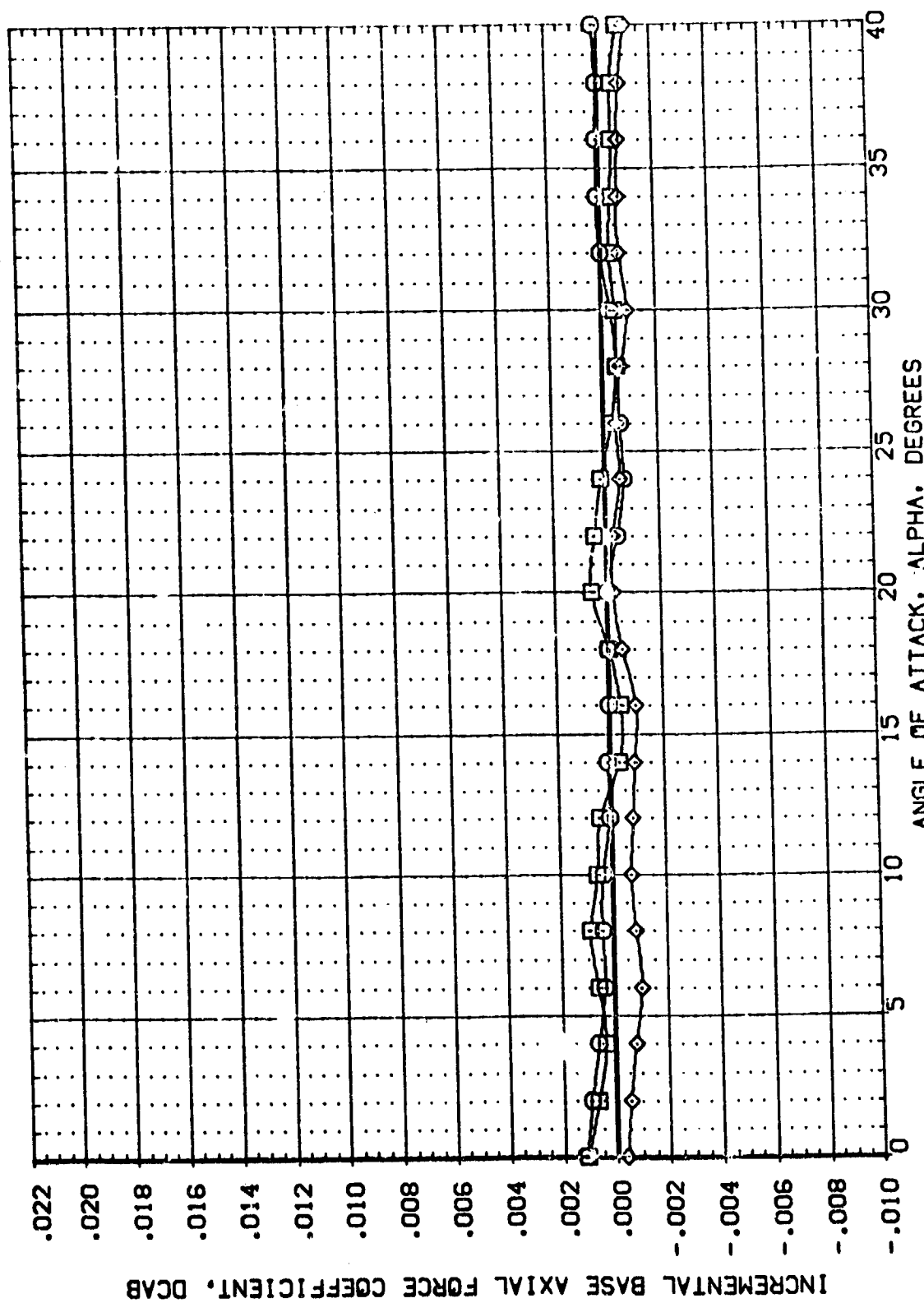


FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139B WITH ALT. NOSE
(E)MACH = 2.99

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087538) MSFC 574(0A48) DRB 139B V/ALT NOSE
 (087542) MSFC 574(0A48) DRB 139B V/ALT NOSE
 (287540) MSFC 574(0A48) DRB 139B V/ALT NOSE

BETA UC DBF
 .000 15.000 13.750
 .000 -40.000 -14.250
 .000 -20.000 .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XREF 838.7000 IN.
 YREF .0000 IN.
 ZREF .0000 IN.
 SCALE .0040

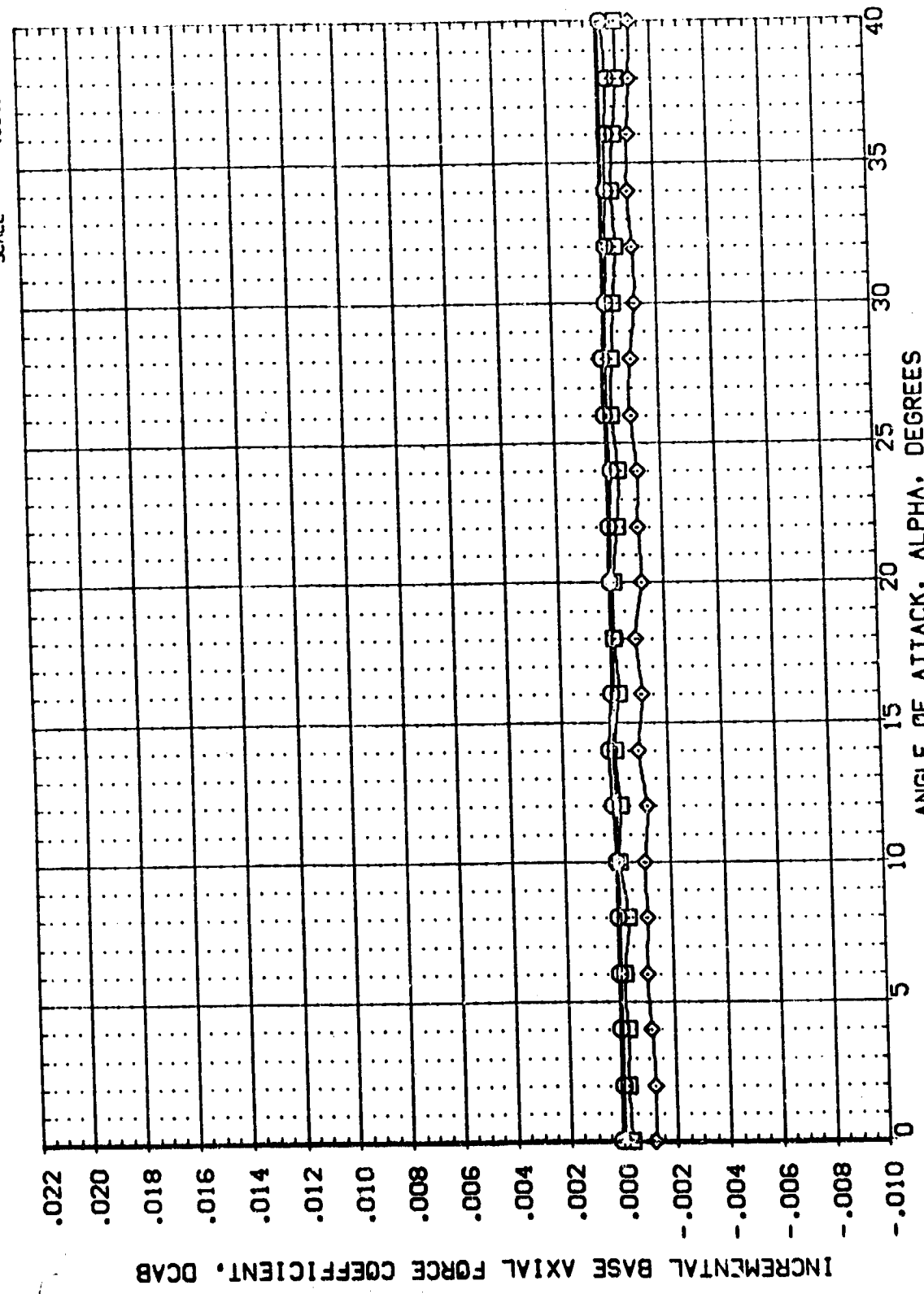


FIG. 39 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139B WITH ALT. NOSE
 (F)MACH = 4.96
 PAGE 1492



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(087550) MSFC 574(0A18) ORB 139

(087564) MSFC 574(0A18) ORB 139

(287562) MSFC 574(0A18) ORB 139

BETA DE DBF

.000 15.000 13.750

.000 -40.000 -14.250

.000 -20.000 .000

REFERENCE INFORMATION

SREF 2690.0000 SQ.FT.

LREF 474.8000 IN.

BREF 936.7000 IN.

YMRP 838.7000 IN.

ZMRP .0000 IN.

SCALE .0040

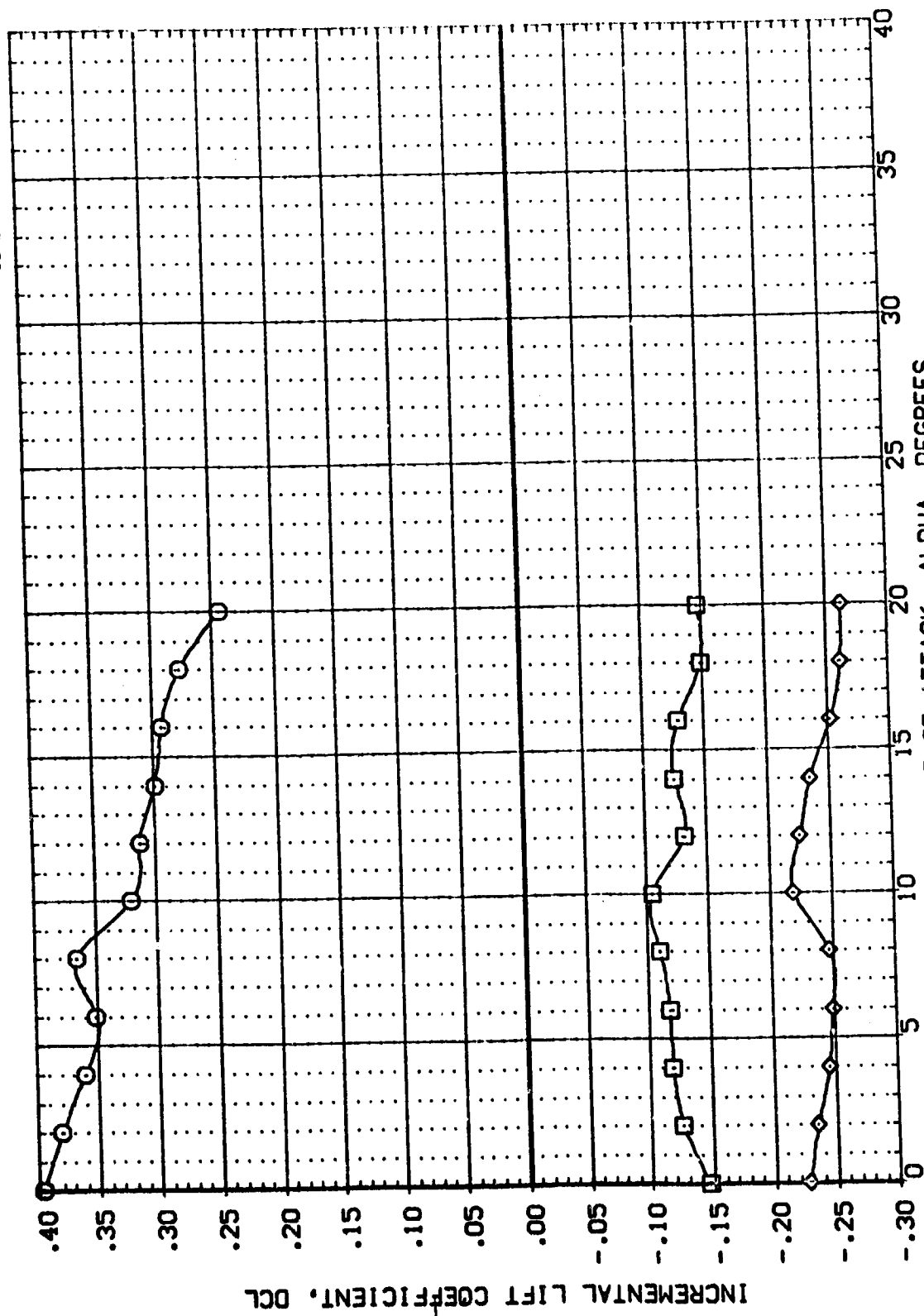


FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139

(A) MACH = .60

PAGE 1493

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087560) MSFC 574(0418) ORB 139
 (087564) MSFC 574(0418) ORB 139
 (287562) MSFC 574(0418) ORB 139

BETA DE DBF
 .000 15.000 13.750
 .000 -40.000 -14.250
 .000 -20.000

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XMRP 838.7000 IN.
 YMRP .0000 IN.
 ZMRP .0000 IN.
 SCALE .0040

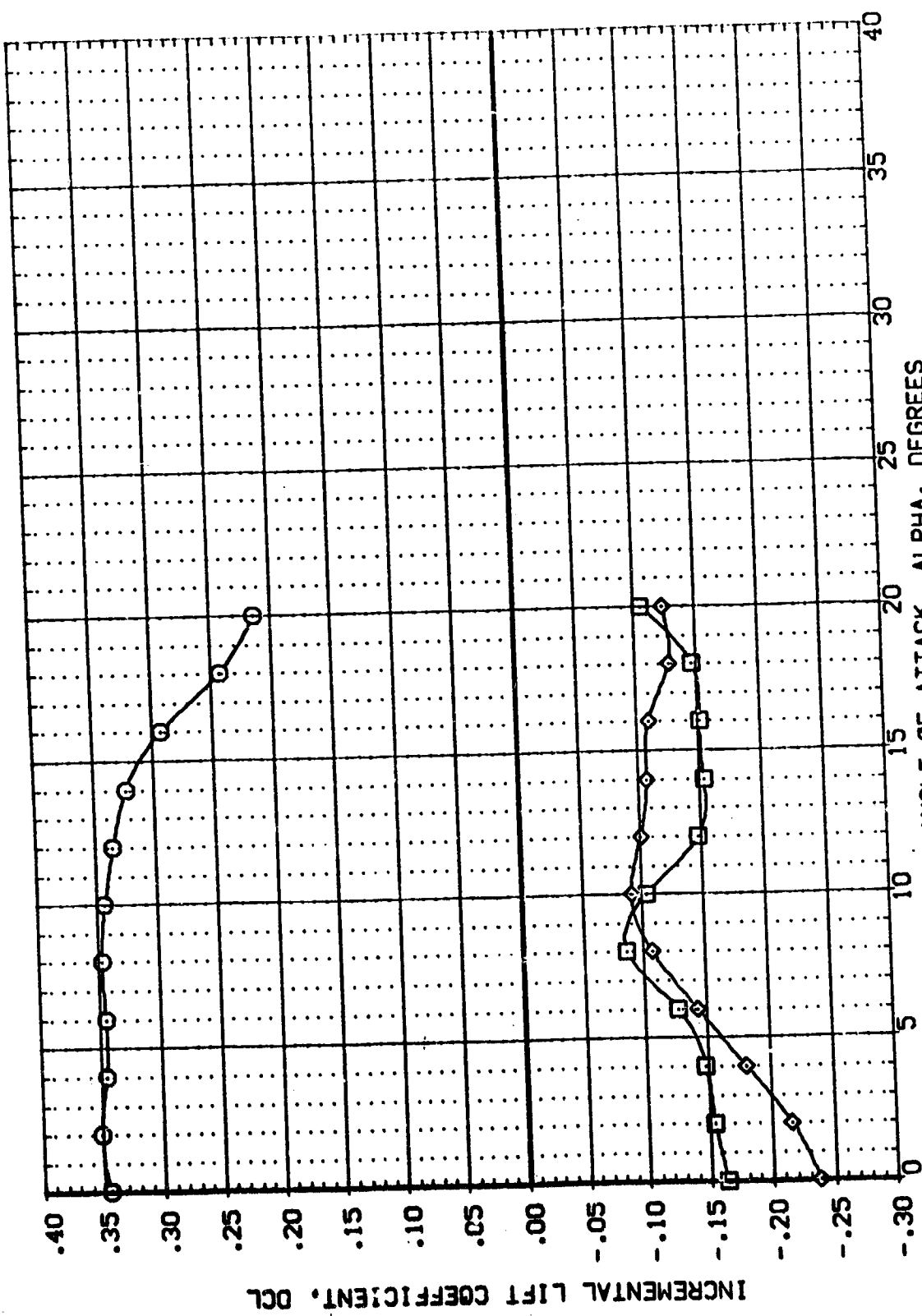


FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139
 (B)MACH = .90
 PAGE 1494

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XMRP 838.7000 IN.
 YMRP .0000 IN.
 ZMRP .0000 IN.
 SCALE .0040

BETA DE DBF
 .000 15.000 13.750
 .000 -40.000 -14.250
 .000 -20.000 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087560) MSFC 574(0A48) ORB 139
 (087564) MSFC 574(0A48) ORB 139
 (287562) MSFC 574(0A48) ORB 139

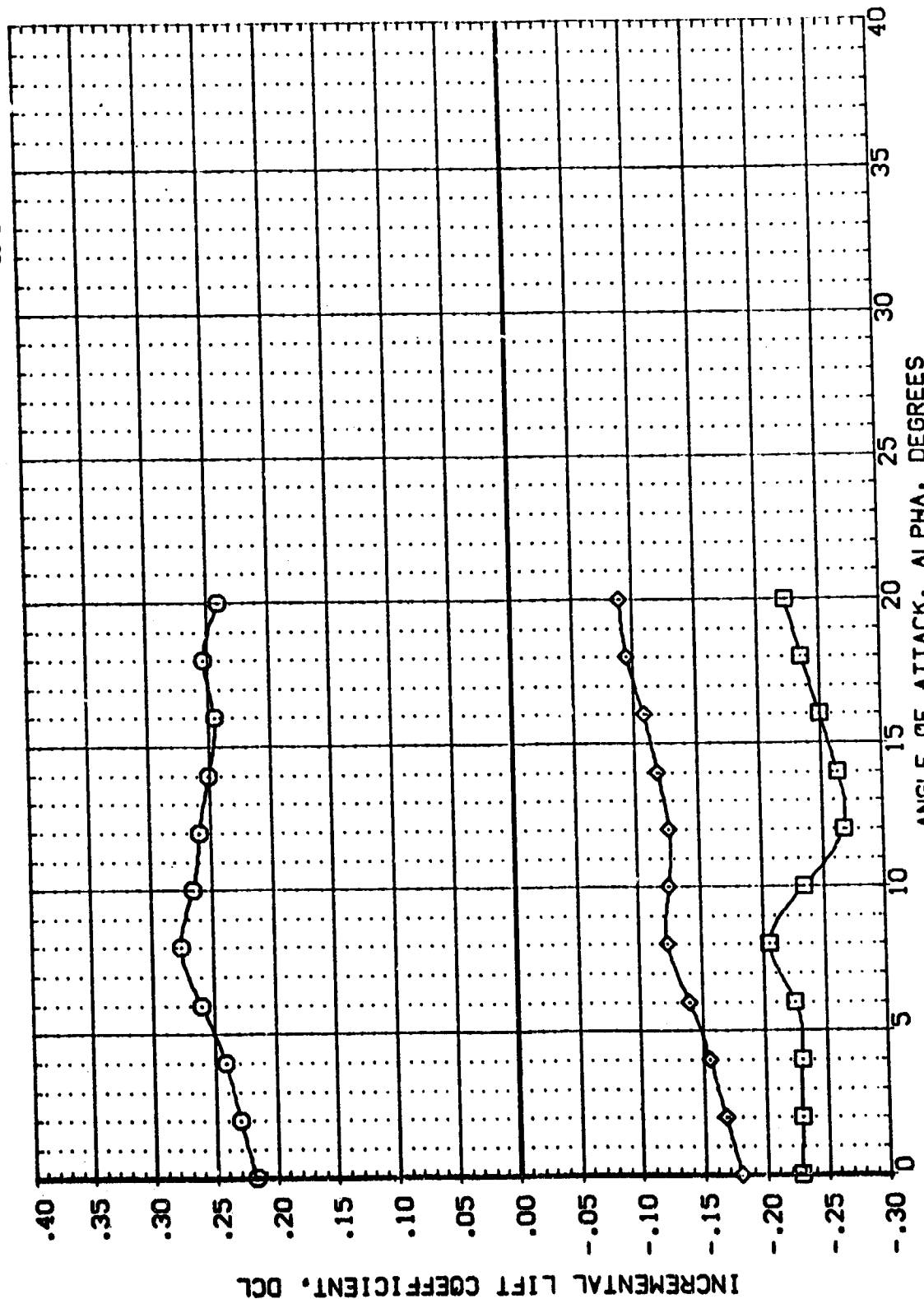


FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139
 (C)MACH = 1.20
 PAGE 1495

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087560) MSFC 574(0A48) ORB 139
 (087561) MSFC 574(0A48) ORB 139
 (087562) MSFC 574(0A48) ORB 139

BETA DE DBF
 .000 15.000 13.750
 .000 -10.000 -14.250
 .000 -20.000

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XMRP 838.7000 IN.
 YMRP .0000 IN.
 ZMRP .0000 IN.
 SCALE .0040

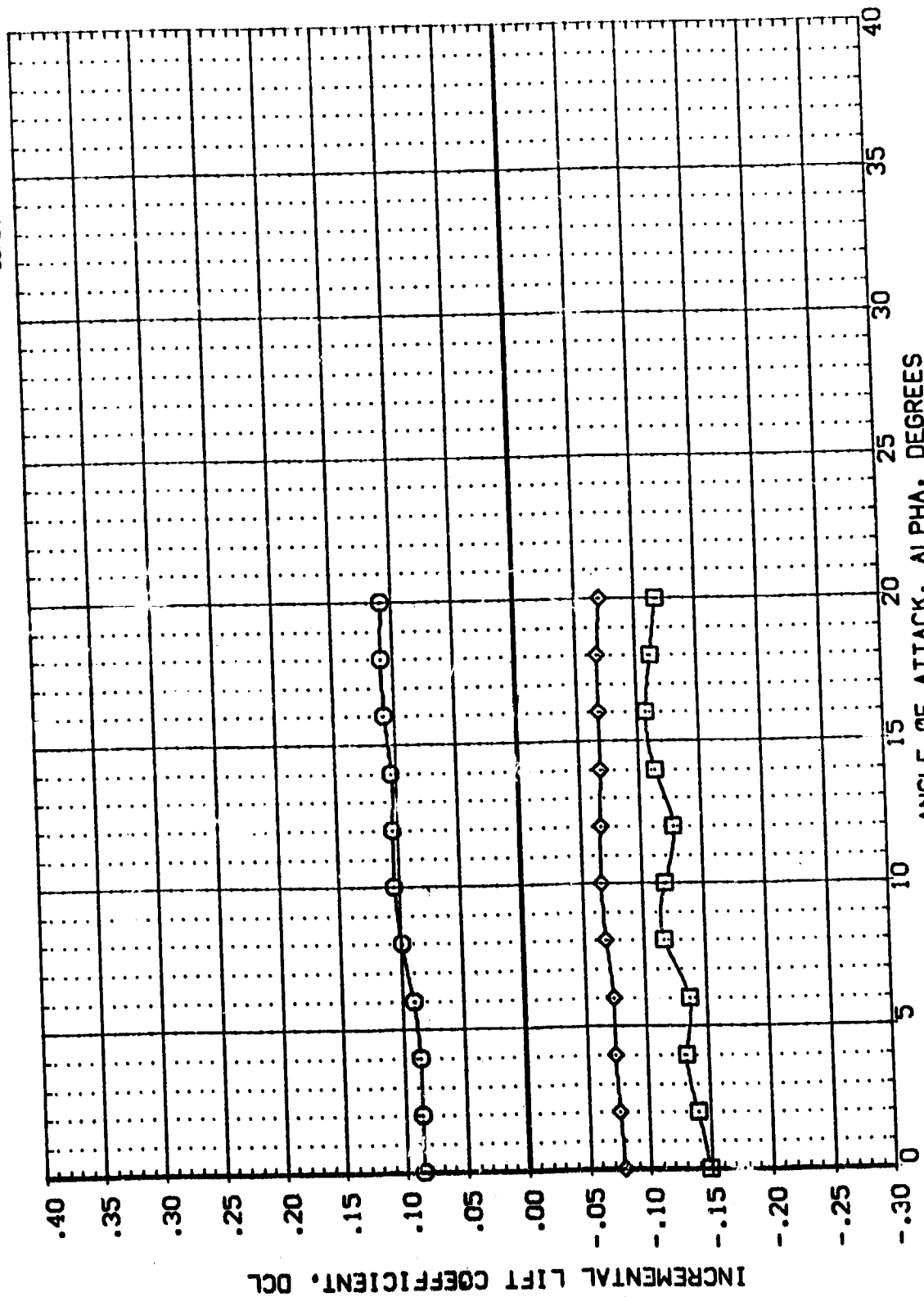


FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139
 (D)MACH = 1.96
 PAGE 1496

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087550) MSFC 574(0A48) ORB 139
 (087551) MSFC 574(0A48) ORB 139
 (287552) MSFC 574(0A48) ORB 139

BETA DE DBF
 .000 15.000 13.750
 .000 -40.000 -14.250
 .000 -20.000 .000

REFERENCE INFORMATION
 SREF 2690.0000 SO.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XMRP 838.7000 IN.
 YMRP .0000 IN.
 ZMRP .0000 IN.
 SCALE .0040

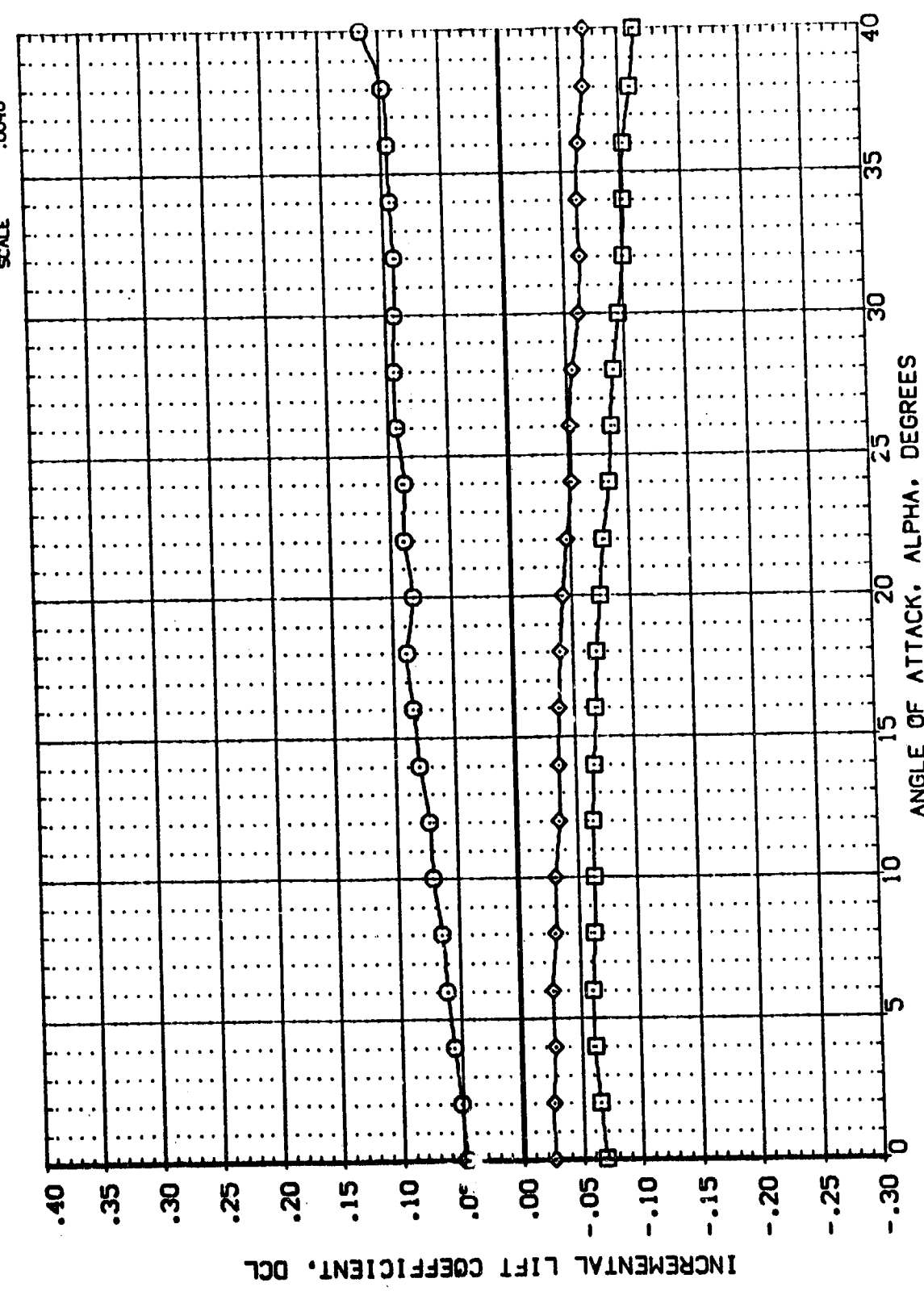


FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139
 (E)MACH = 2.99 PAGE 1497

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	DBF	REFERENCE INFORMATION
(087560)	MSFC 574(0A48) ORB 139	.000	15.000	13.750	SREF 2690.0000 SO.FT.
(087564)	MSFC 574(0A48) ORB 139	.000	-40.000	-14.250	LREF 474.8000 IN.
(287562)	MSFC 574(0A48) ORB 139	.000	-20.000	.000	BREF 936.7007 IN.
					XREF 838.7000 IN.
					YREF .0000 IN.
					ZREF .0000 IN.
					SCALE .0010

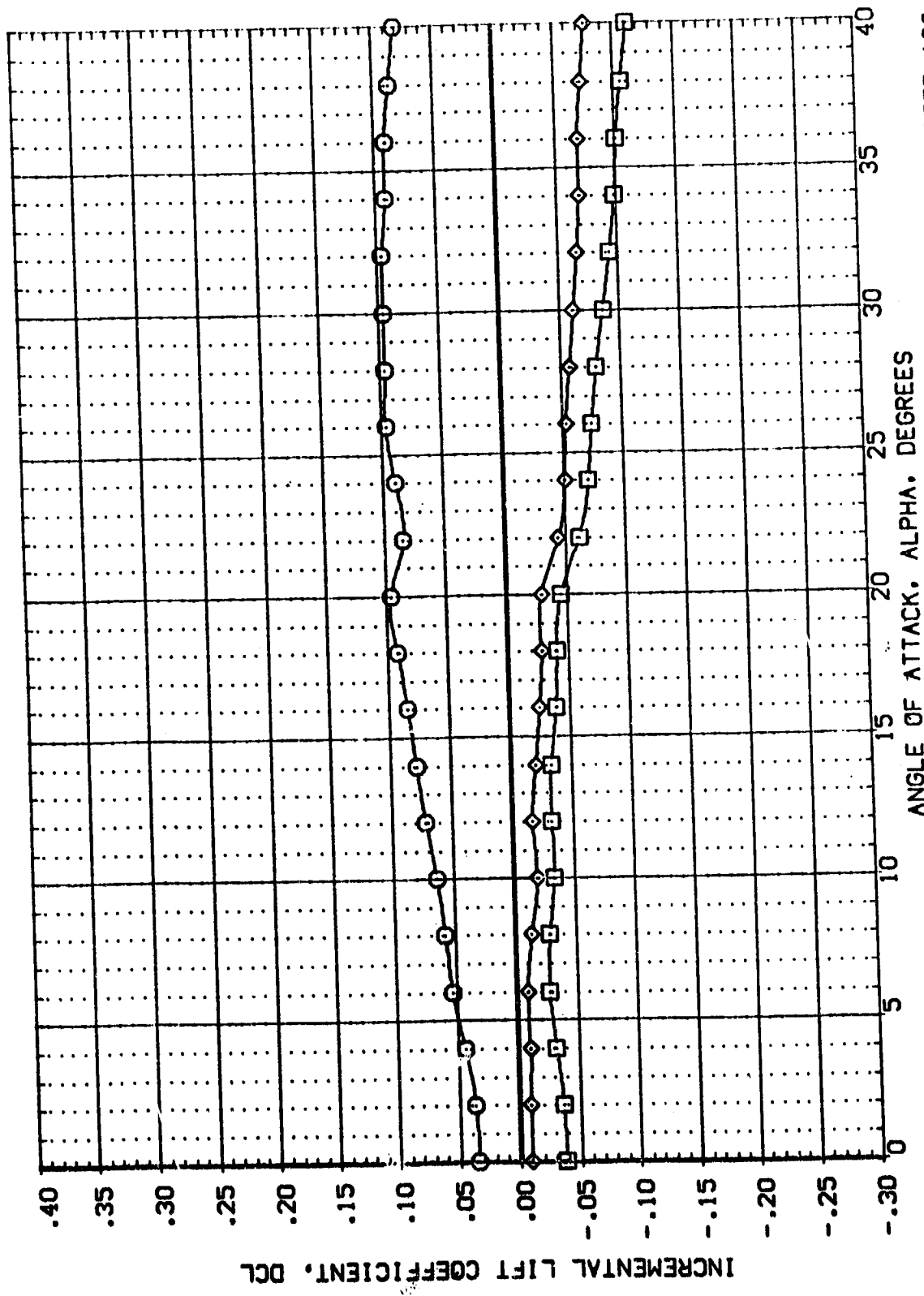


FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139
(F)MACH = 4.96



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	DBF	REFERENCE INFORMATION
(087560)	MSFC 574(OA48) ORB 139	.000	15.000	13.750	SREF 2690.0000 SQ.FT.
(087564)	MSFC 574(OA48) ORB 139	.000	-40.000	-14.250	LREF 474.8000 IN.
(287562)	MSFC 574(OA48) ORB 139	.000	-20.000		BREF 936.7000 IN.
					XMRP 838.7000 IN.
					YMRP .0000 IN.
					ZMRP .0000 IN.
					SCALE .0040

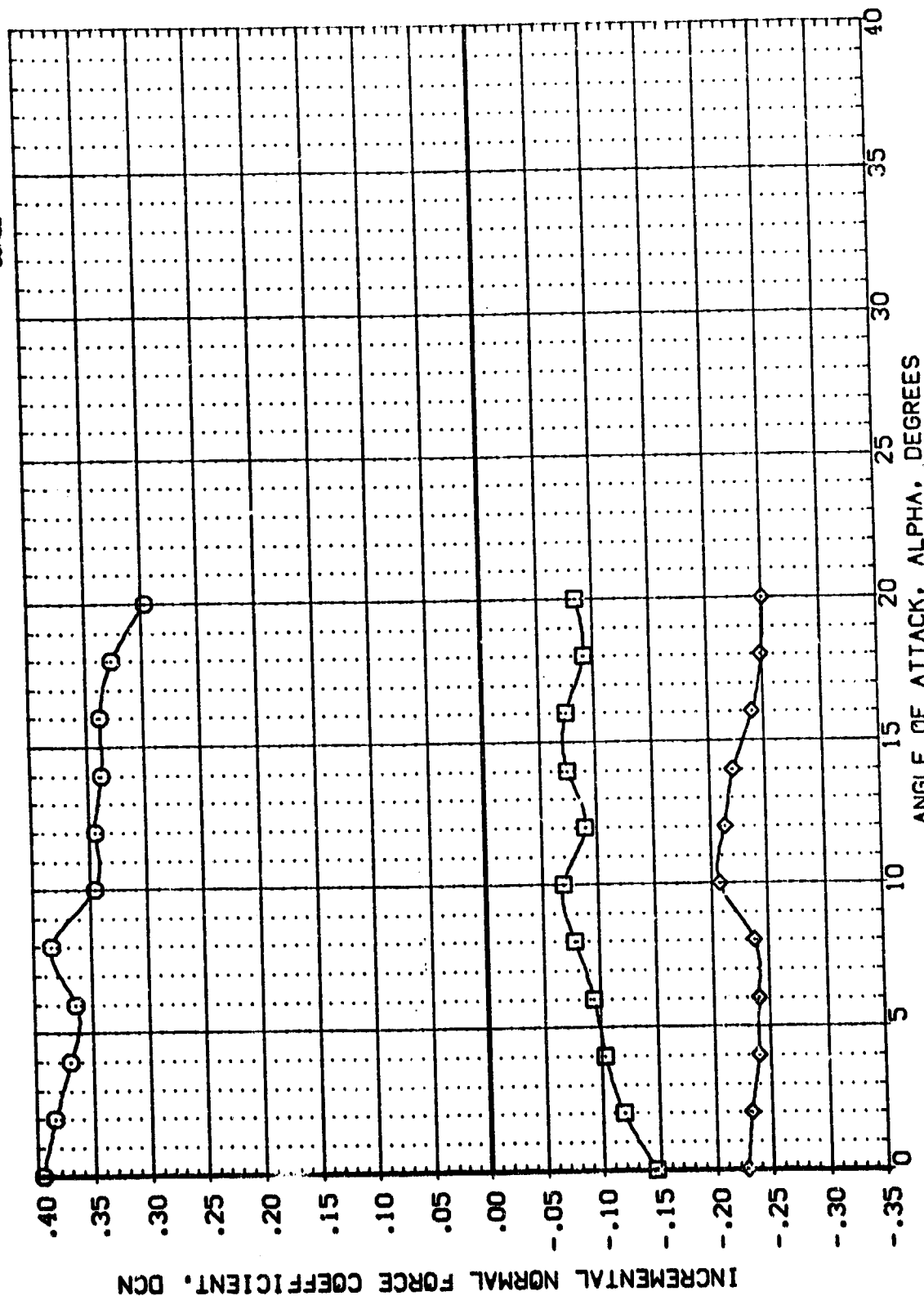


FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139
(A)MACH = .80
PAGE 1499

REFERENCE INFORMATION
 SREF 2650.0000 SO.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XREF 838.7000 IN.
 YREF 6000 IN.
 ZREF 6000 IN.
 SCALE .0040

BETA DE DBF
 .000 15.000 13.750
 .000 -40.000 -14.250
 .000 -20.000 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087560) MSFC 574(0A48) ORB 139
 (087564) MSFC 574(0A48) ORB 139
 (287562) MSFC 574(0A48) ORB 139

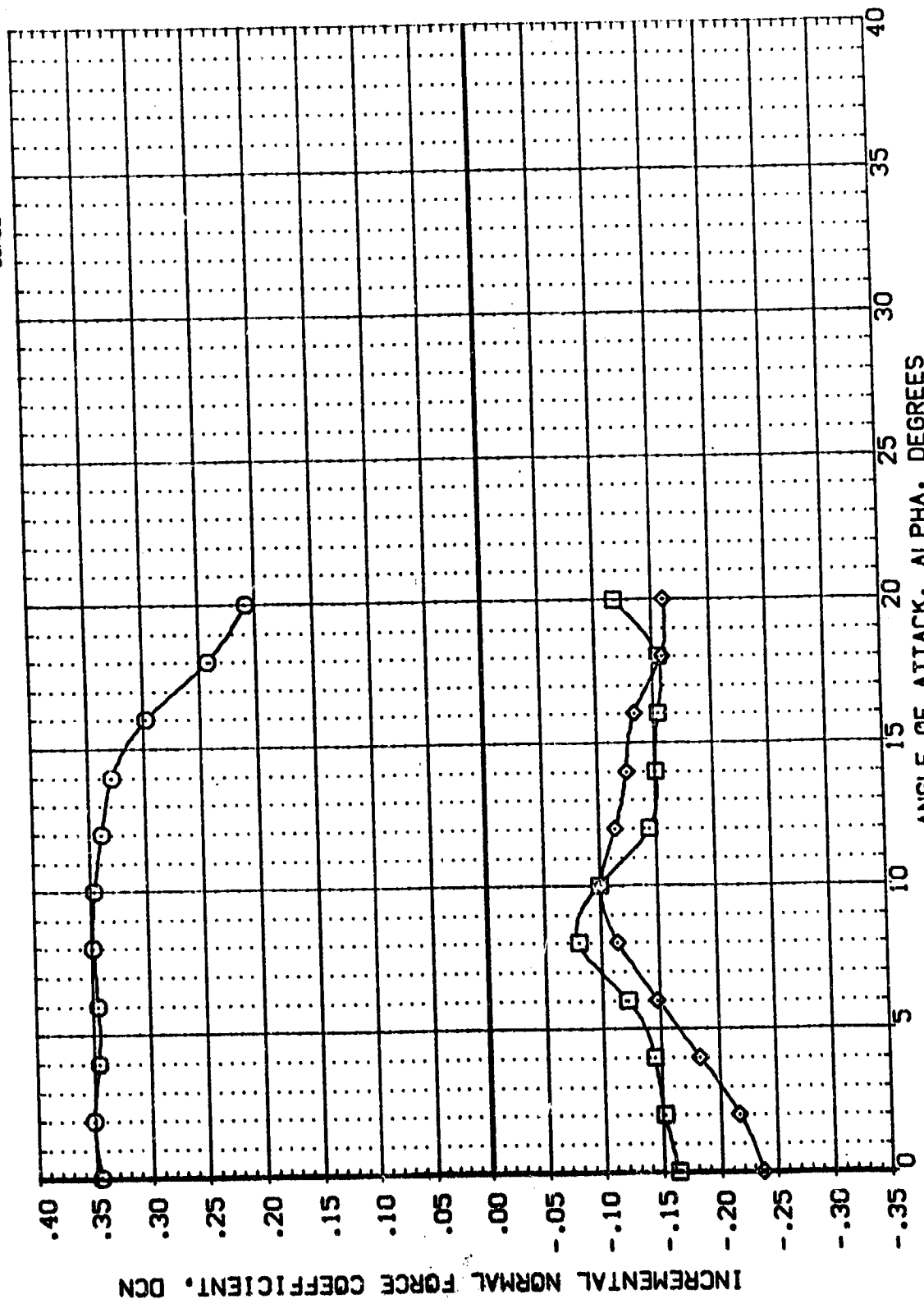


FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139
 (B)MACH = .90
 PAGE 1500

REFERENCE INFORMATION
 SREF 2630.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XMRP 638.7000 IN.
 YMRP .0000 IN.
 ZMRP .0000 IN.
 SCALE .0040

BETA DE DBF
 .000 15.000 13.750
 .000 -40.000 -14.250
 .000 -20.000 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087550) MSFC 574(0A48) ORB 139
 (087551) MSFC 574(0A48) ORB 139
 (087552) MSFC 574(0A48) ORB 139

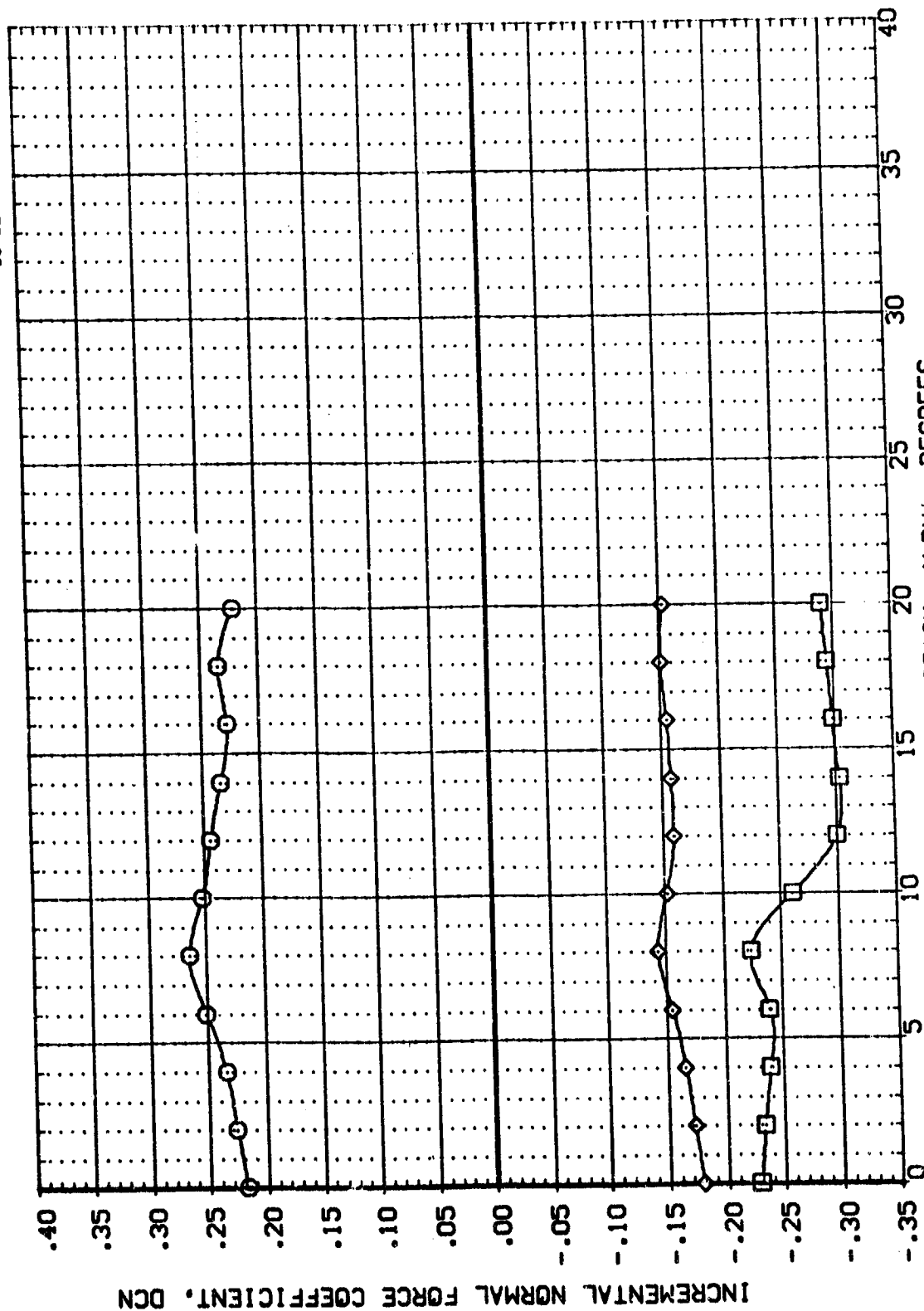


FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139
 (C)MACH = 1.20
 PAGE 1501

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.7000	IN.
XGRP	838.7000	IN.
YGRP	0000	IN.
ZGRP	0000	IN.
SCALE	.0040	

BETA DE DBF

.000	15.000	13.750
.000	-10.000	-14.250
.000	-20.000	.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(087560)	MSFC 574(DA48) ORB 139
(087564)	MSFC 574(DA48) ORB 139
(287562)	MSFC 574(DA48) ORB 139

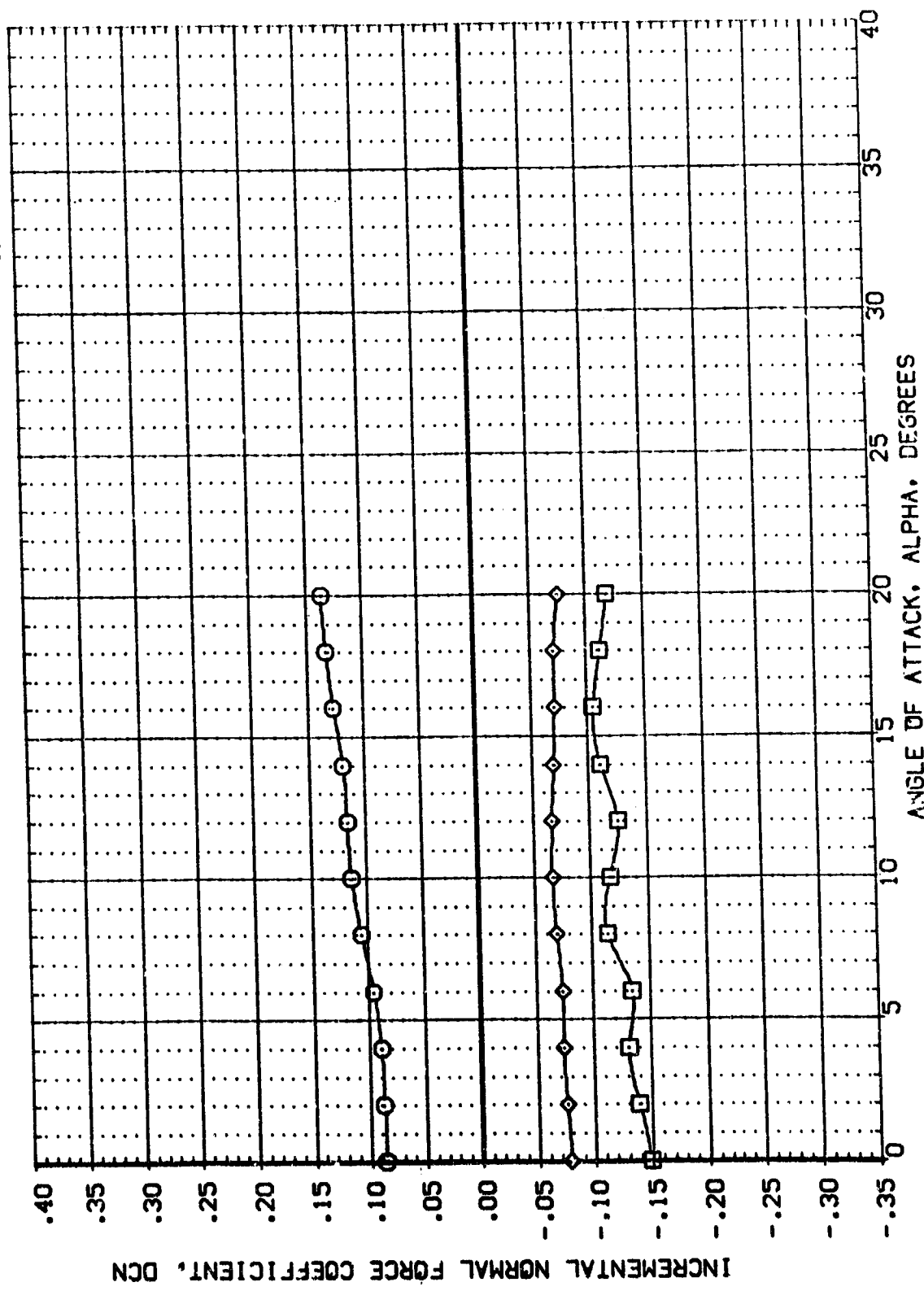


FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139
(O)MACH = 1.96



DATA SET SYMBOL: (087560) MSFC 574(0448) ORB 139
(087564) MSFC 574(0448) ORB 139
(087562) MSFC 574(0448) ORB 139

BETA DE DBF
.000 15.000 13.750
.000 -40.000 -14.250
.000 -20.000

REFERENCE INFORMATION
SREF 2690.0000 SQ.FT.
LREF 474.8000 IN.
BREF 936.7000 IN.
XMRP 838.7000 IN.
YMRP .0000 IN.
ZMRP .0000 IN.
SCALE .0040

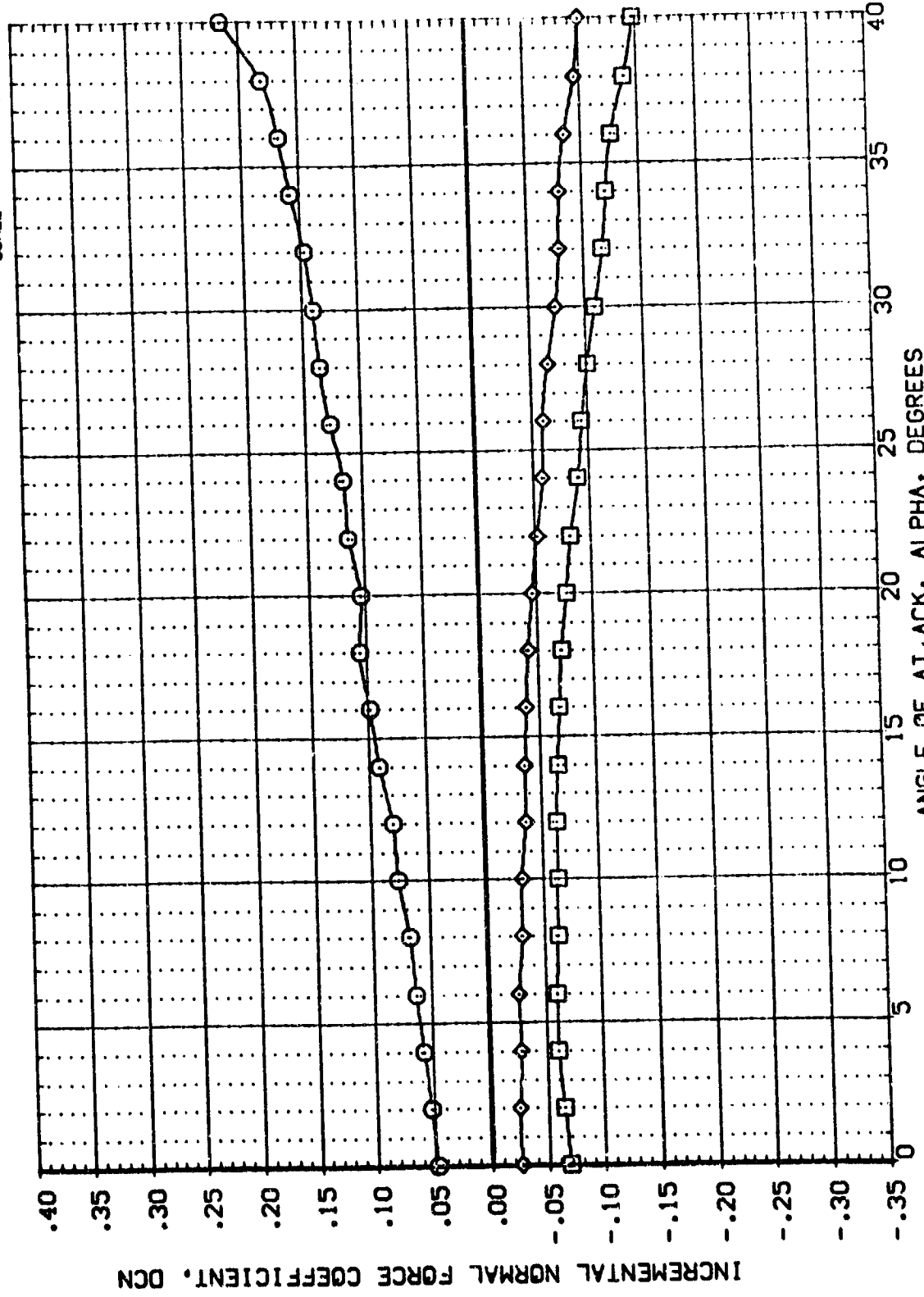


FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139
(E)MACH = 2.99
PAGE 1503

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(087560) MSFC 574(CA48) ORB 139

(087561) MSFC 574(CA48) ORB 139

(087562) MSFC 574(CA48) ORB 139

BETA DE DBF

.000 15.000 13.750

.000 -40.000 -14.250

.000 -20.000 .000

REFERENCE INFORMATION

SREF 2690.0000 SQ.FT.

LREF 474.8000 IN.

BREF 938.7000 IN.

XMRP 838.7000 IN.

YMRP .0000 IN.

ZMRP .0000 IN.

SCALE .0040

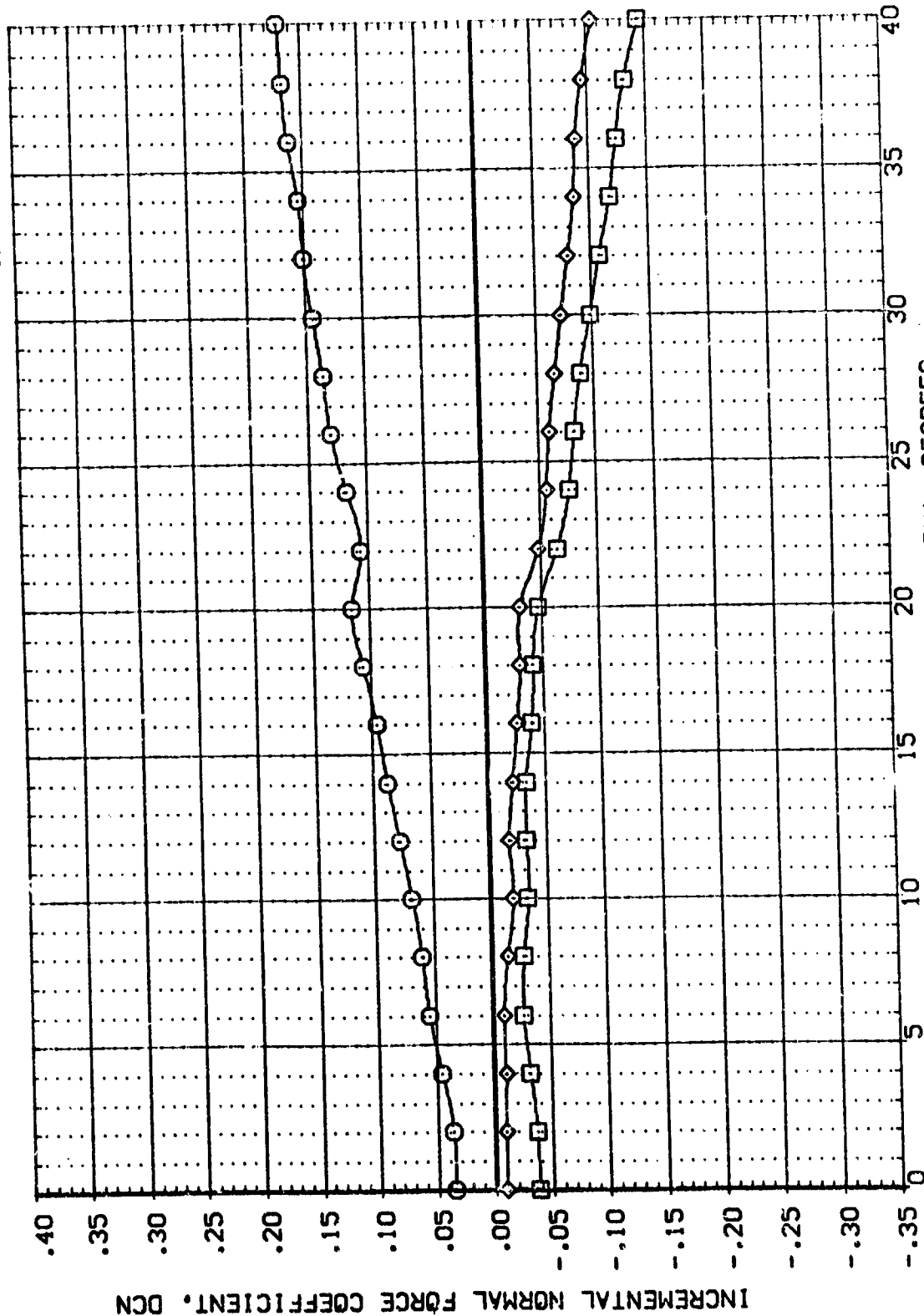


FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139

(F)MACH = 4.96

PAGE 1504



REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 535.7000 IN.
 XREF 838.7000 IN.
 YREF .0000 IN.
 ZREF .0000 IN.
 SCALE .0010

BETA DE DBF
 .000 15.000 13.750
 .000 -40.000 -14.250
 .000 -20.000 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087560) NSFC 574(DA48) ORB 139
 (087564) NSFC 574(DA48) ORB 139
 (287562) NSFC 574(DA48) ORB 139

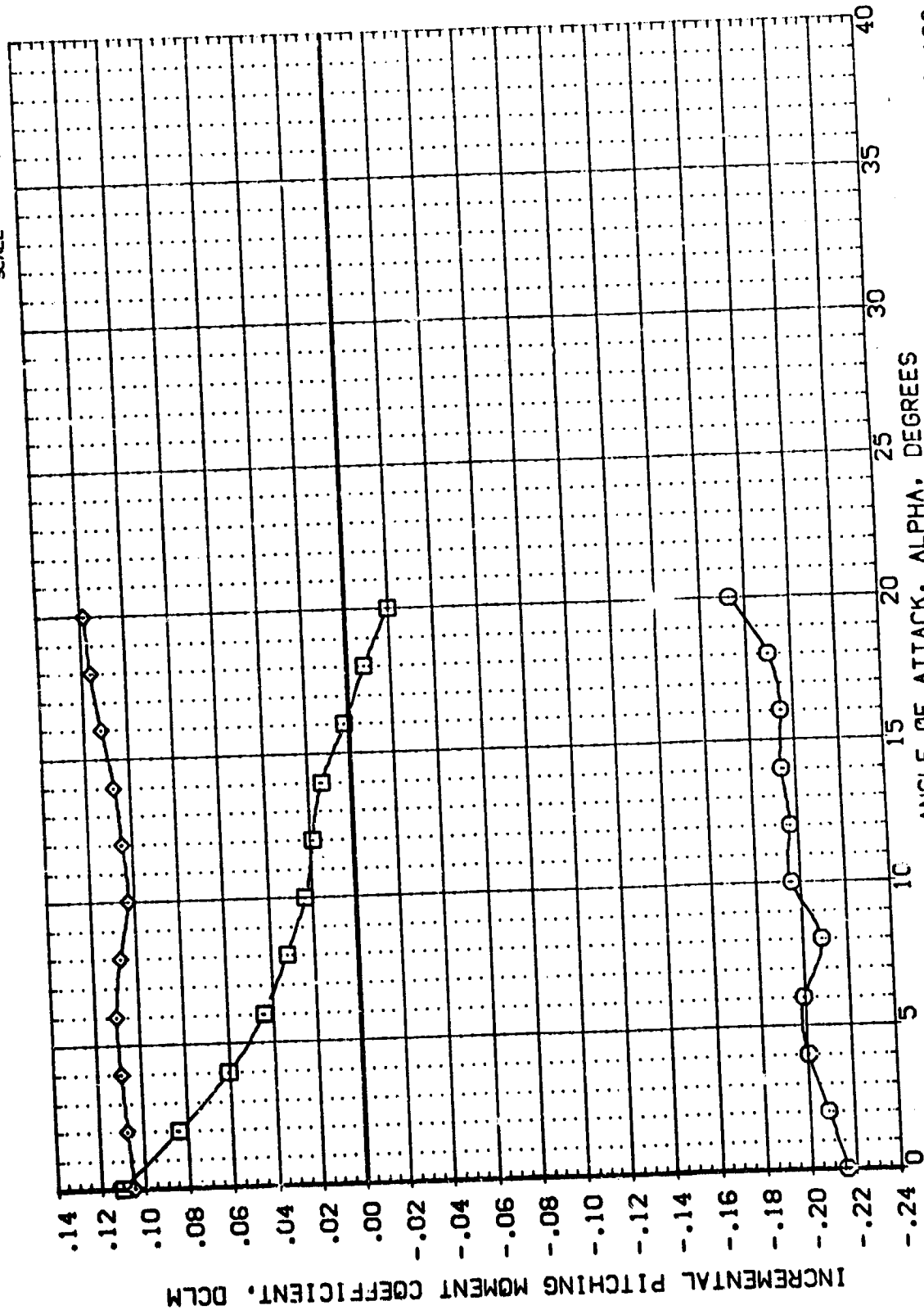


FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139
 (A)MACH = .60
 PAGE 1505

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.6000 IN.
 BREF 935.7000 IN.
 XMRP 838.7000 IN.
 YMRP .0000 IN.
 ZMRP .0000 IN.
 SCALE .0040

BETA DE DBF
 .000 15.000 12.750
 .000 -40.000 -14.250
 .000 -20.000 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (067560) MSFC 574(OA48) CRB 139
 (067564) MSFC 574(OA48) CRB 139
 (287562) MSFC 574(OA48) CRB 139

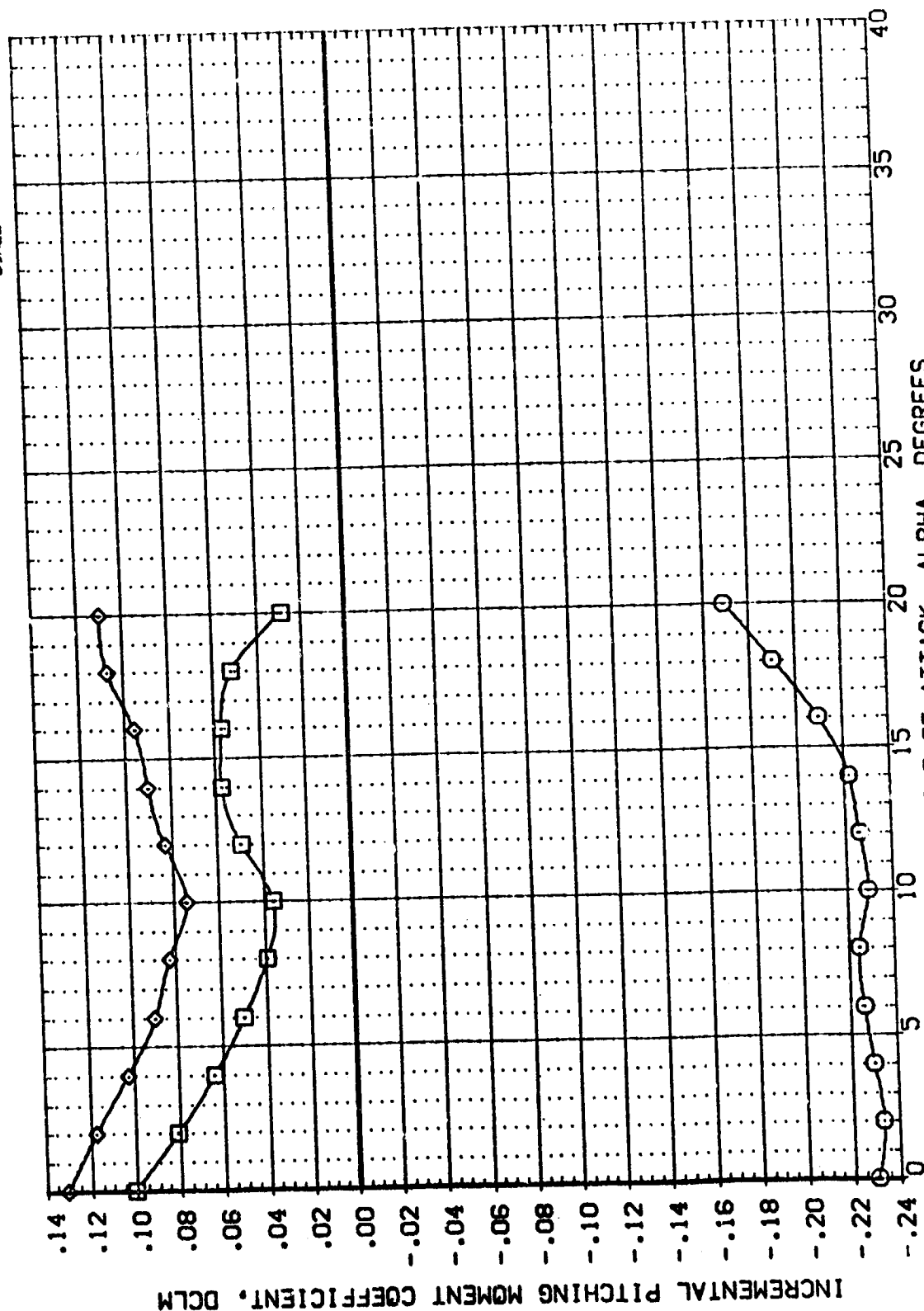


FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139
 (B)MACH = .90

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.7000	IN.
XMRP	838.7000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	

BETA DE DBF

.000	15.000	13.750
.000	-40.000	-14.250
.000	-20.000	.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(087560)	MSFC 574(0A48) DB 139
(087564)	MSFC 574(0A48) DB 139
(287562)	MSFC 574(0A48) DB 139



FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139
(C)MACH = 1.20

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087560) MSFC 574(0A48) ORB 139
 (087561) MSFC 574(0A48) ORB 139
 (087562) MSFC 574(0A48) ORB 139

BETA DE DBF
 .000 15.000 13.750
 .000 40.000 -14.250
 .000 -20.000 .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XPRP 838.7000 IN.
 YPRP .0000 IN.
 ZPRP .0000 IN.
 SCALE .0040

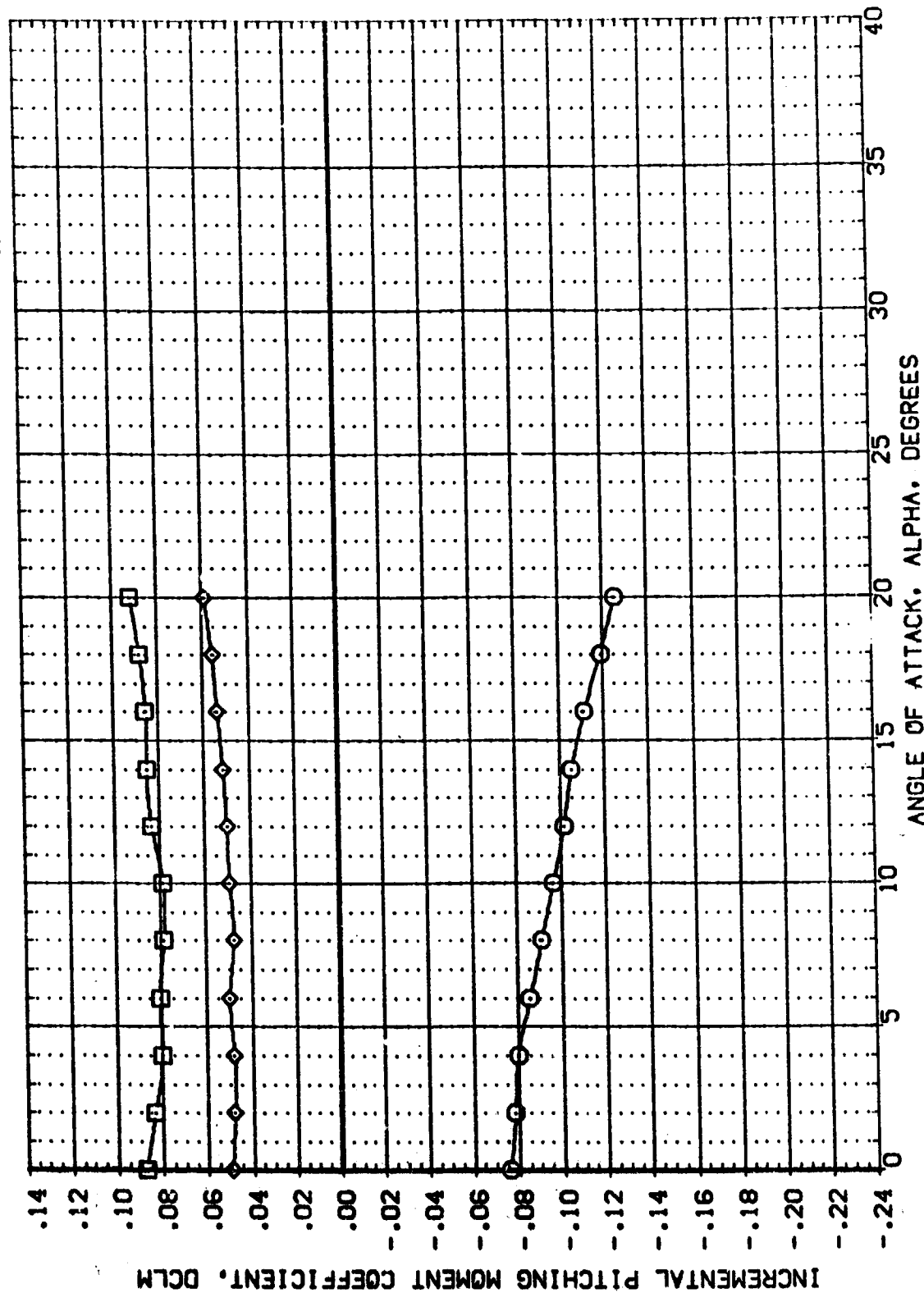


FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139
 (D)MACH = 1.96



DATA SET SYMBOL - CONFIGURATION DESCRIPTION
(087550) MSFC 574(0A48) ORB 139
(087551) MSFC 574(0A48) ORB 139
(087552) MSFC 574(0A48) ORB 139

BETA DE DBF
.000 15.000 13.750
.000 -40.000 -14.250
.000 -20.000 .000

REFERENCE INFORMATION -
SREF 2690.0000 SQ.FT.
LREF 474.8000 IN.
BREF 836.7000 IN.
XREF 838.7000 IN.
YREF .0000 IN.
ZREF .0000 IN.
SCALE .0040

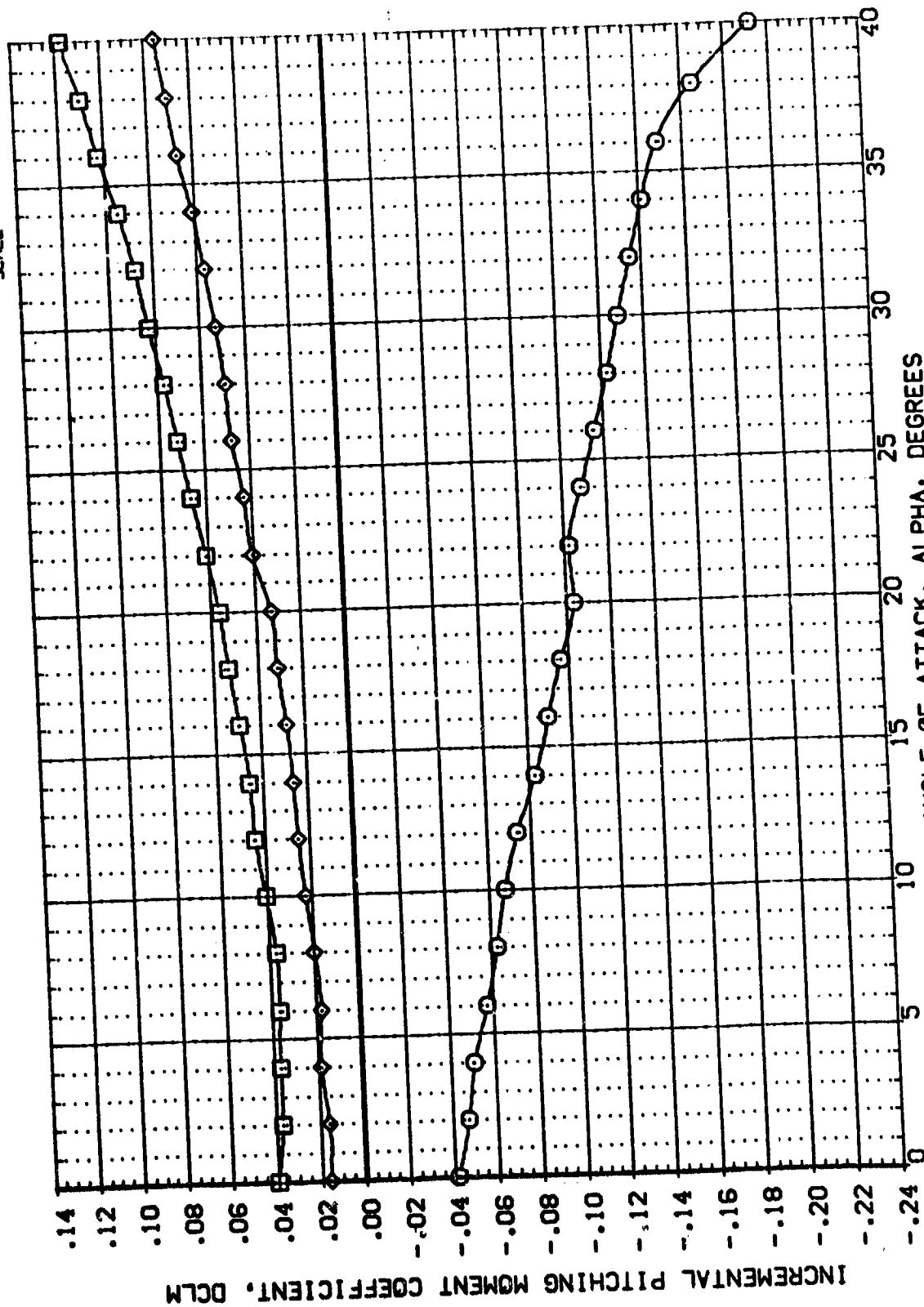


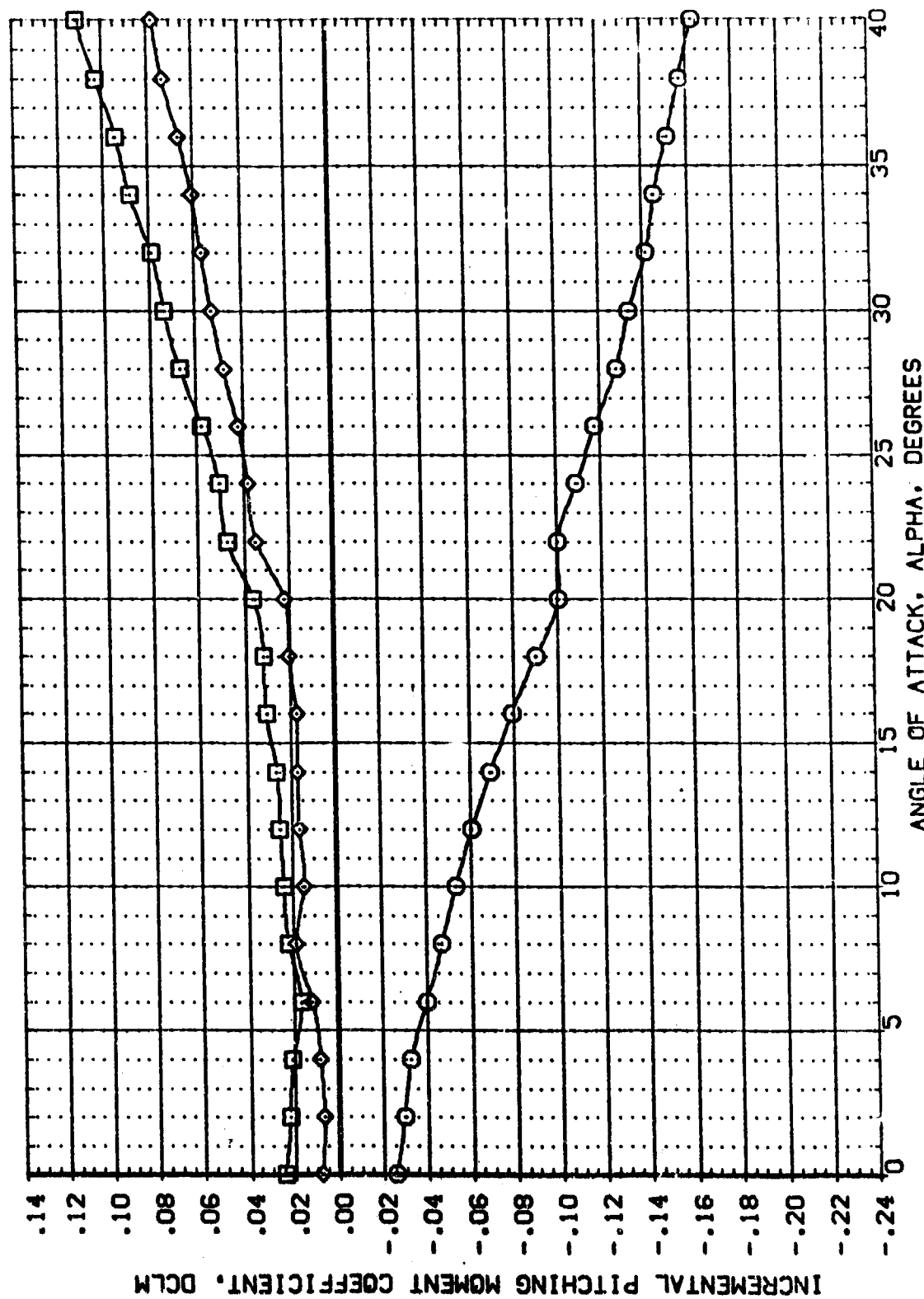
FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139

(E)MACH = 2.99

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087560) MSC 574(0A48) ORB 139
 (087564) MSC 574(0A48) ORB 139
 (087562) MSC 574(0A48) ORB 139

BETA DE DBF
 .000 15.000
 .000 -14.750
 .000 -14.250
 .000 -20.000

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XMRP 833.7000 IN.
 YMRP .0000 IN.
 ZMRP .0000 IN.
 SCALE .0040



ANGLE OF ATTACK, ALPHA, DEGREES

FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139

REFERENCE INFORMATION

SREF	2690.0000	sq.ft.
LREF	474.8000	in.
EREF	936.7000	in.
XPRP	938.0000	in.
YPRP	.0000	in.
ZPRP	.0000	in.
SCALE	.0040	

BETA DE DBF

BETA	0.00	13.750
DE	0.00	-14.250
DBF	0.00	.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(087580)	MSFC 574(0448) ORB 139
(187584)	DATA NOT AVAILABLE
(287582)	MSFC 574(0448) ORB 139

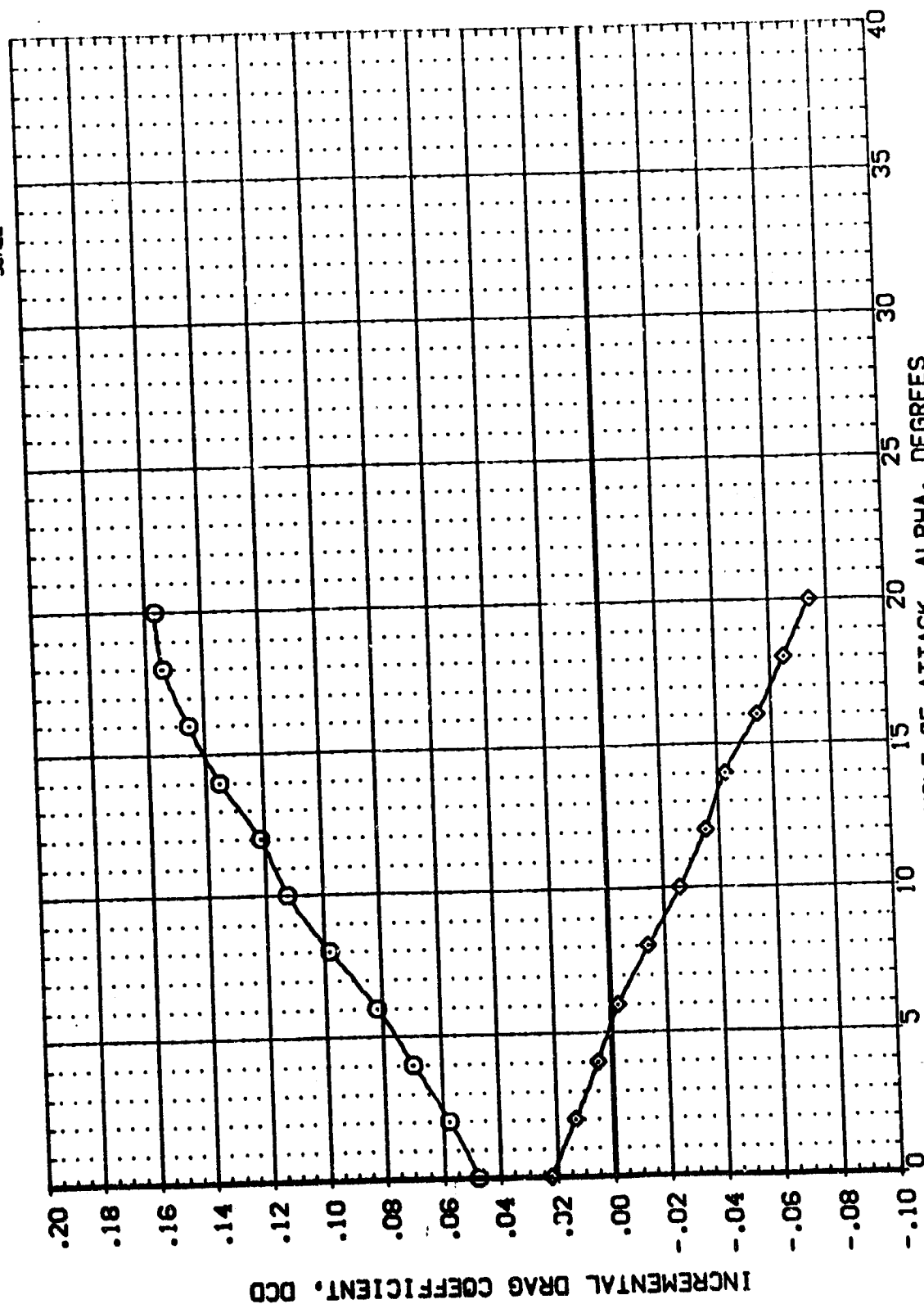


FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139
 (A)MACH = .60

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087560) MSFC 574(0A48) ORB 139
 (+87564) DATA NOT AVAILABLE
 (287562) MSFC 574(0A48) ORB 139

BETA DE DBF
 .000 15.000 13.750
 .000 -40.000 -14.250
 .000 -20.000 .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XREF 838.7000 IN.
 YREF .0000 IN.
 ZREF .0000 IN.
 SCALE .0040

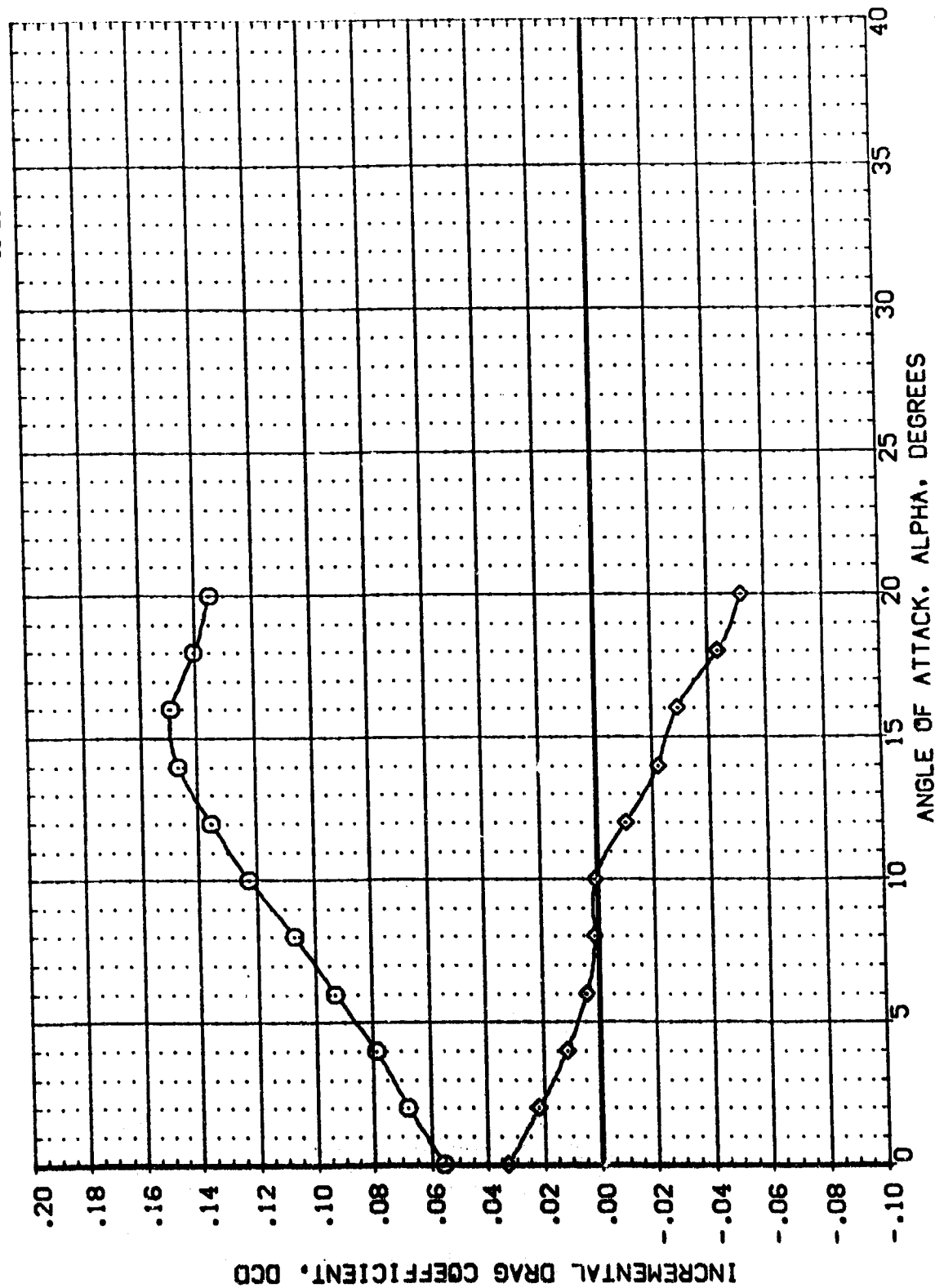


FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139
 (B)MACH = .90

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XMRP 838.7000 IN.
 YMRP .0000 IN.
 ZMRP .0000 IN.
 SCALE .0040

BETA DE DBF
 .000 15.000 13.750
 .000 -40.000 -14.250
 .000 -20.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087980) MSFC 574(048) ORB 139
 (467861) DATA NOT AVAILABLE
 (287962) MSFC 574(048) ORB 139

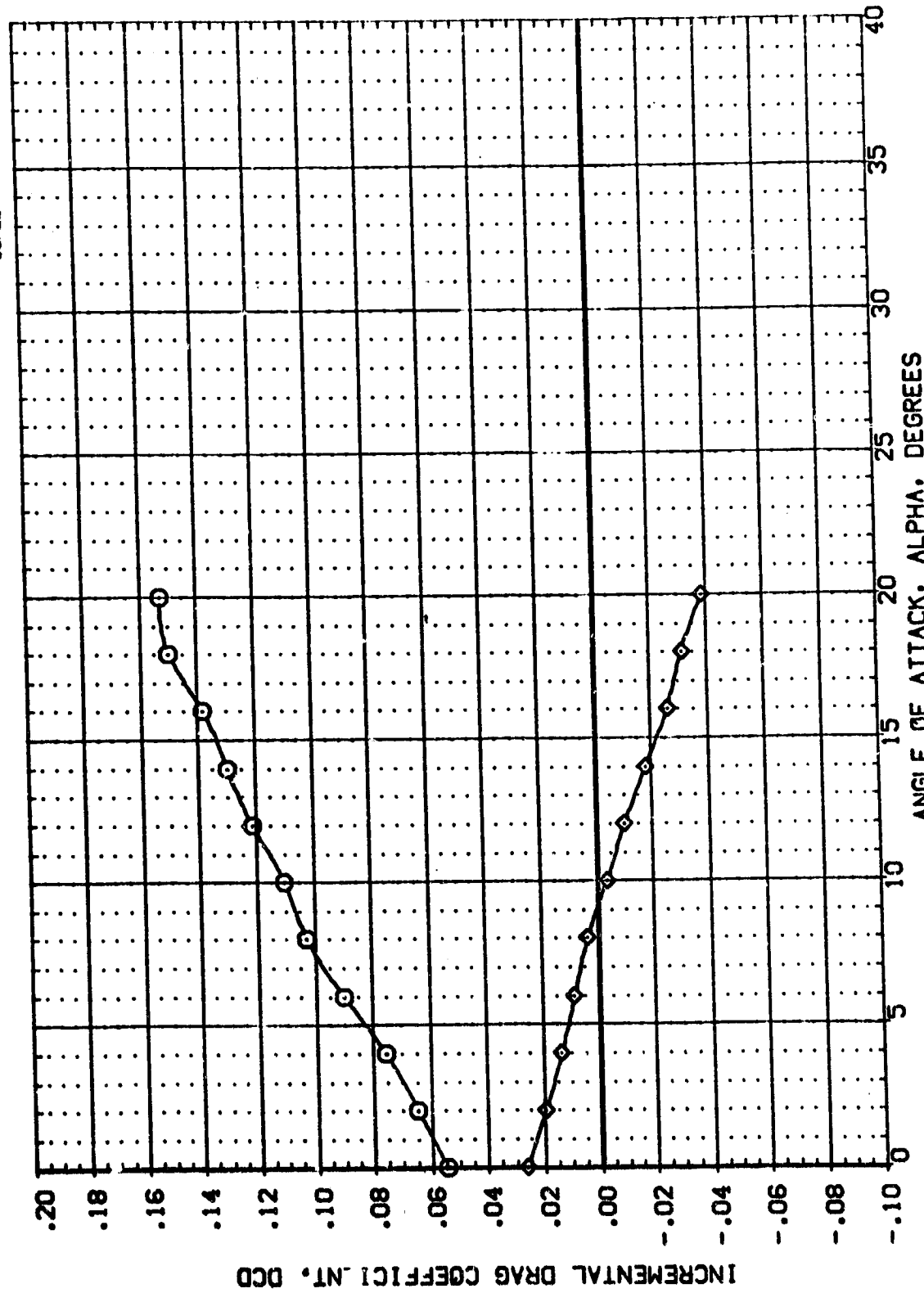


FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139

(C)MACH = 1.20

REFERENCE INFORMATION

SREF	2690.0000	SO.FT.
LREF	474.8000	IN.
BREF	936.7000	IN.
XPRP	838.0000	IN.
YPRP	.0000	IN.
ZPRP	.0000	IN.
SCALE	.0040	

BETA DE DBF

.000	15.000	13.750
.000	-10.000	-14.250
.000	-20.000	.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(087580)	MSFC 574(0A48) 008 139
(487584)	MSFC 574(0A48) 008 139
(287582)	MSFC 574(0A48) 008 139

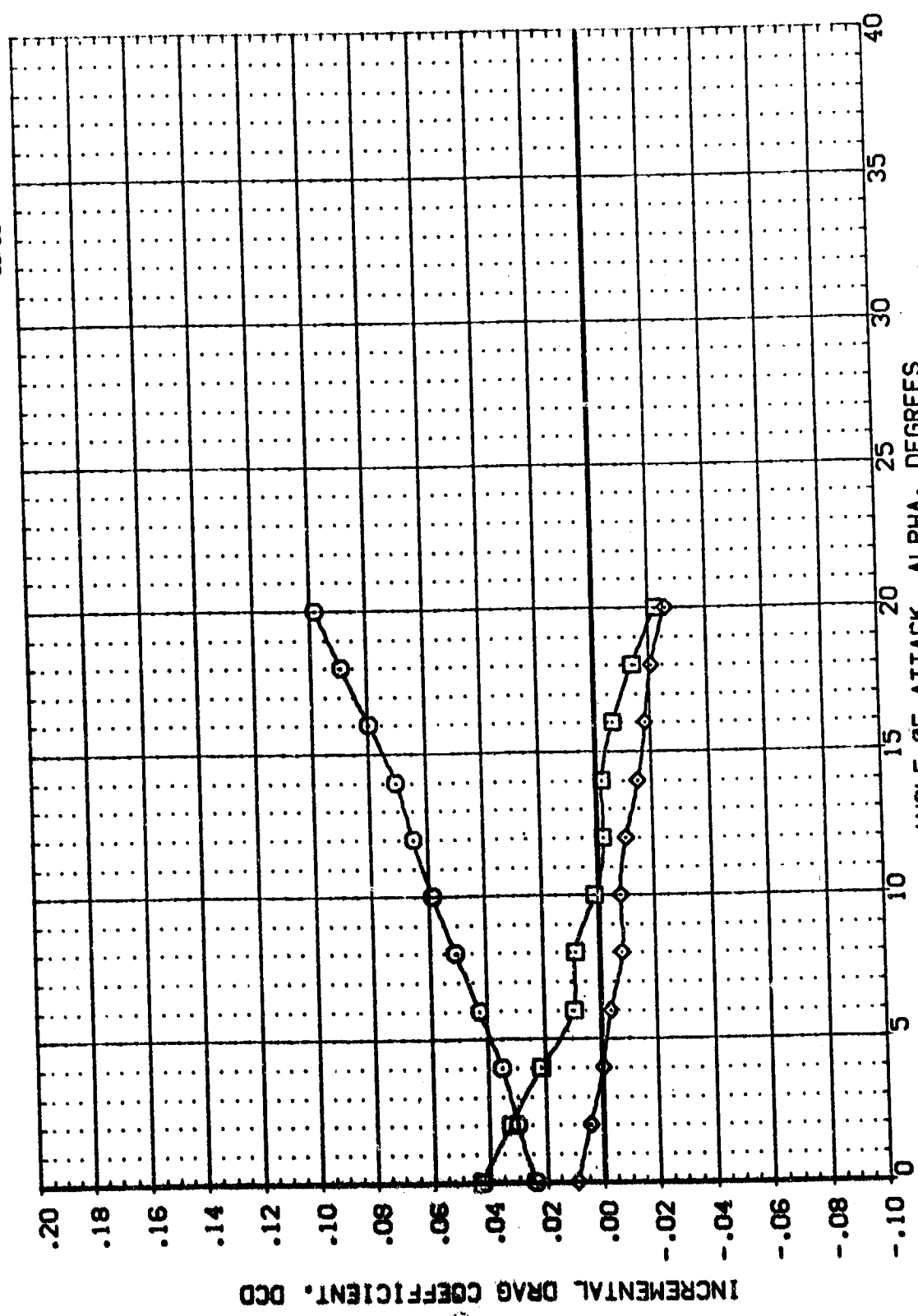


FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139
(D)MACH = 1.96

REFERENCE INFORMATION

SREF	2690.0000	50. FT.
LREF	474.8000	IN.
BREF	936.7000	IN.
XMRP	836.7000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	

BETA DE DBF

.000	15.000	13.750
.000	-40.000	-14.000
.000	-20.000	

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(087560)	MSFC 574(QM48) DB 139
(+87564)	MSFC 574(QM48) DB 139
(287562)	MSFC 574(QM48) DB 139

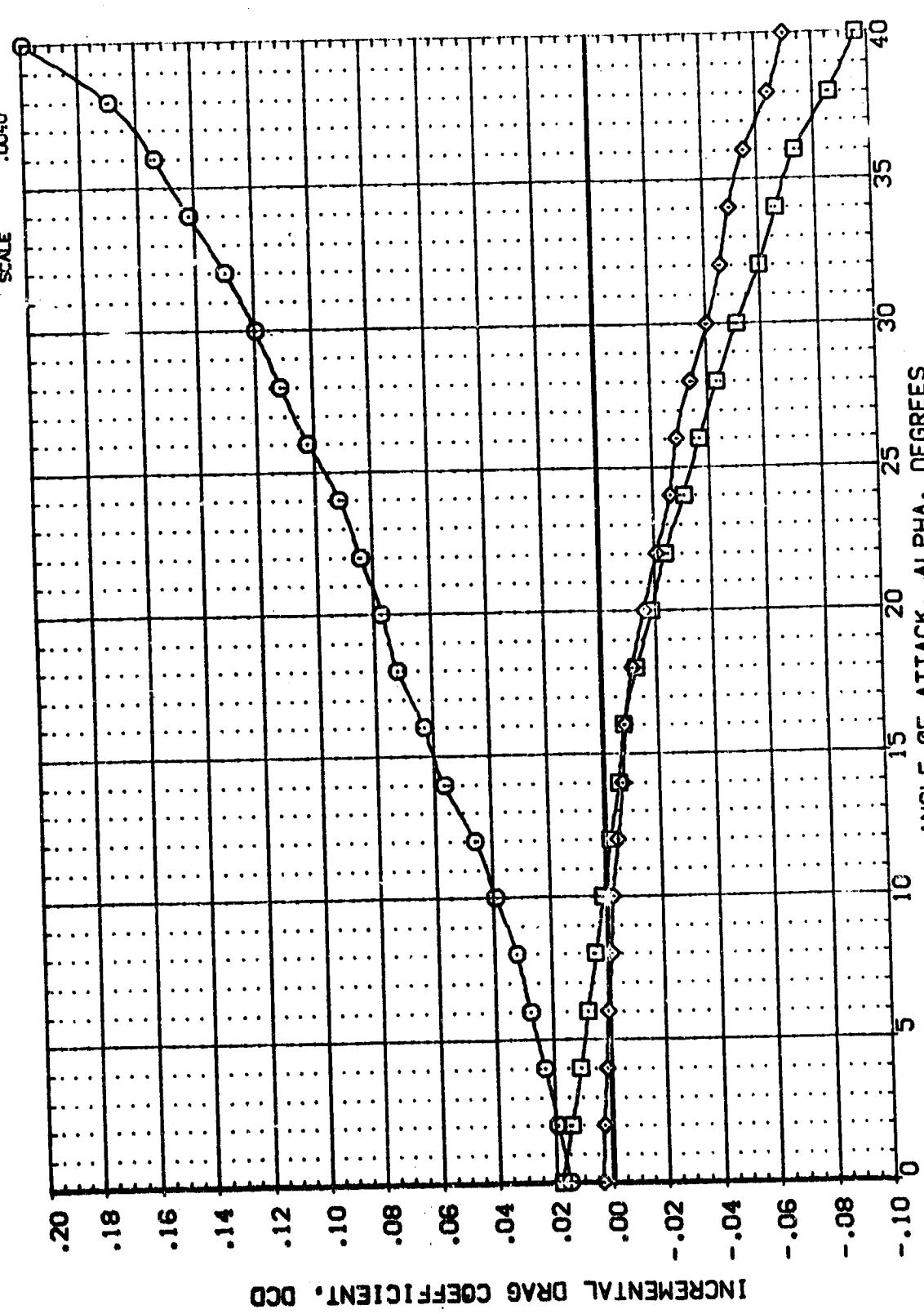


FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139
(E)MACH = 2.99

DATA SET SYMBOL: (087560) (087561) (087562)
 CONFIGURATION DESCRIPTION: MSFC 574 (DA48) ORB 139
 MSFC 574 (DA48) ORB 139
 MSFC 574 (DA48) ORB 139

BETA: .000
 DE: 15.000
 DBF: 13.750
 REFERENCE INFORMATION:
 SREF: 2690.0000 SQ.FT.
 LREF: 474.8000 IN.
 BREF: 936.7000 IN.
 XREF: 838.7000 IN.
 YREF: .0000 IN.
 ZREF: .0000 IN.
 SCALE: .0040

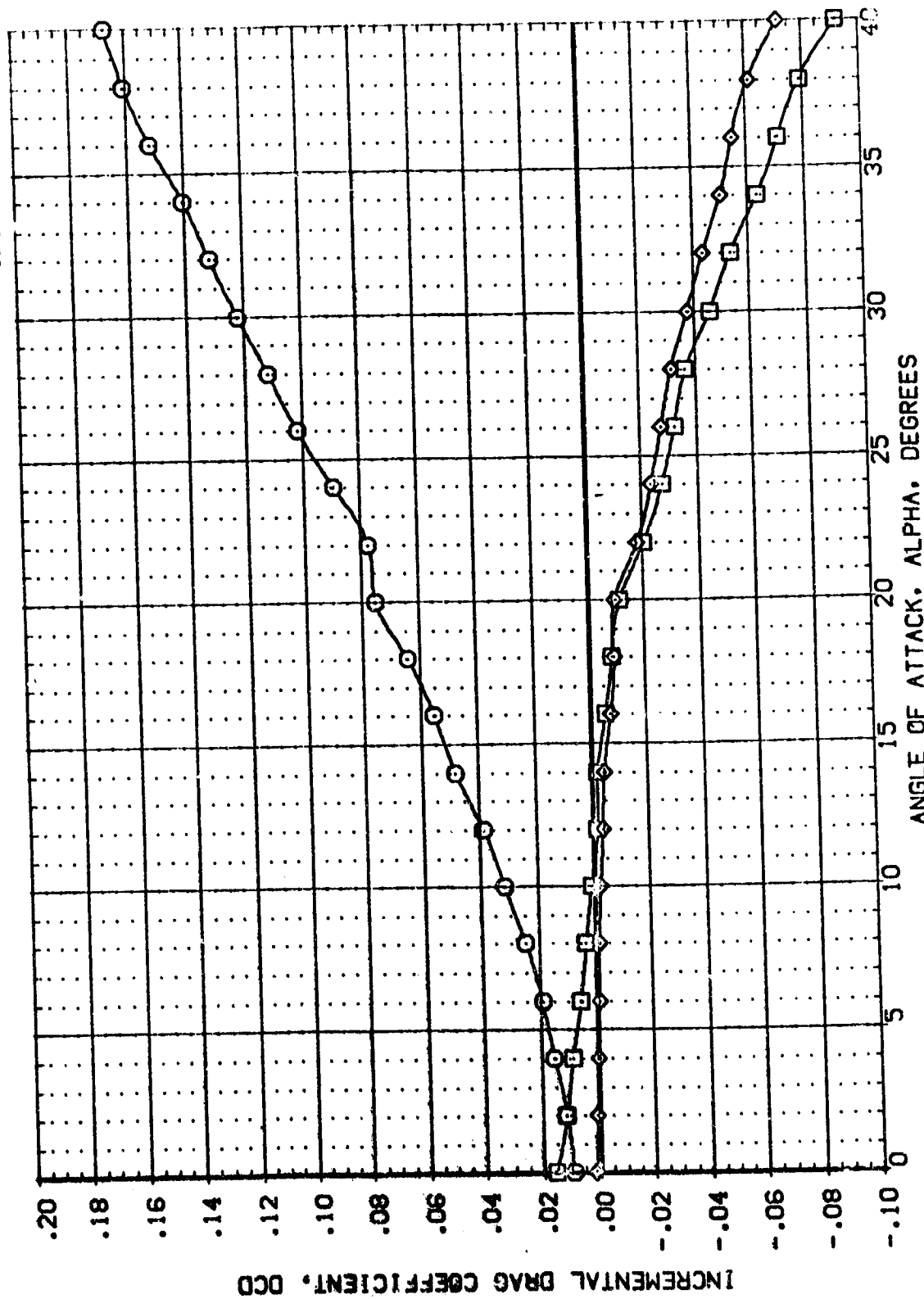


FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139
 (F)MACH = 4.96

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XMRP 838.7000 IN.
 YMRP .0000 IN.
 ZMRP .0000 IN.
 SCALE .0040

BETA DE DBF
 .000 15.000 13.750
 .000 -40.000 -14.250
 .000 -20.000 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087960) MSFC 574(0A48) ORB 139
 (+87964) DATA NOT AVAILABLE
 (287562) MSFC 574(0A48) ORB 139

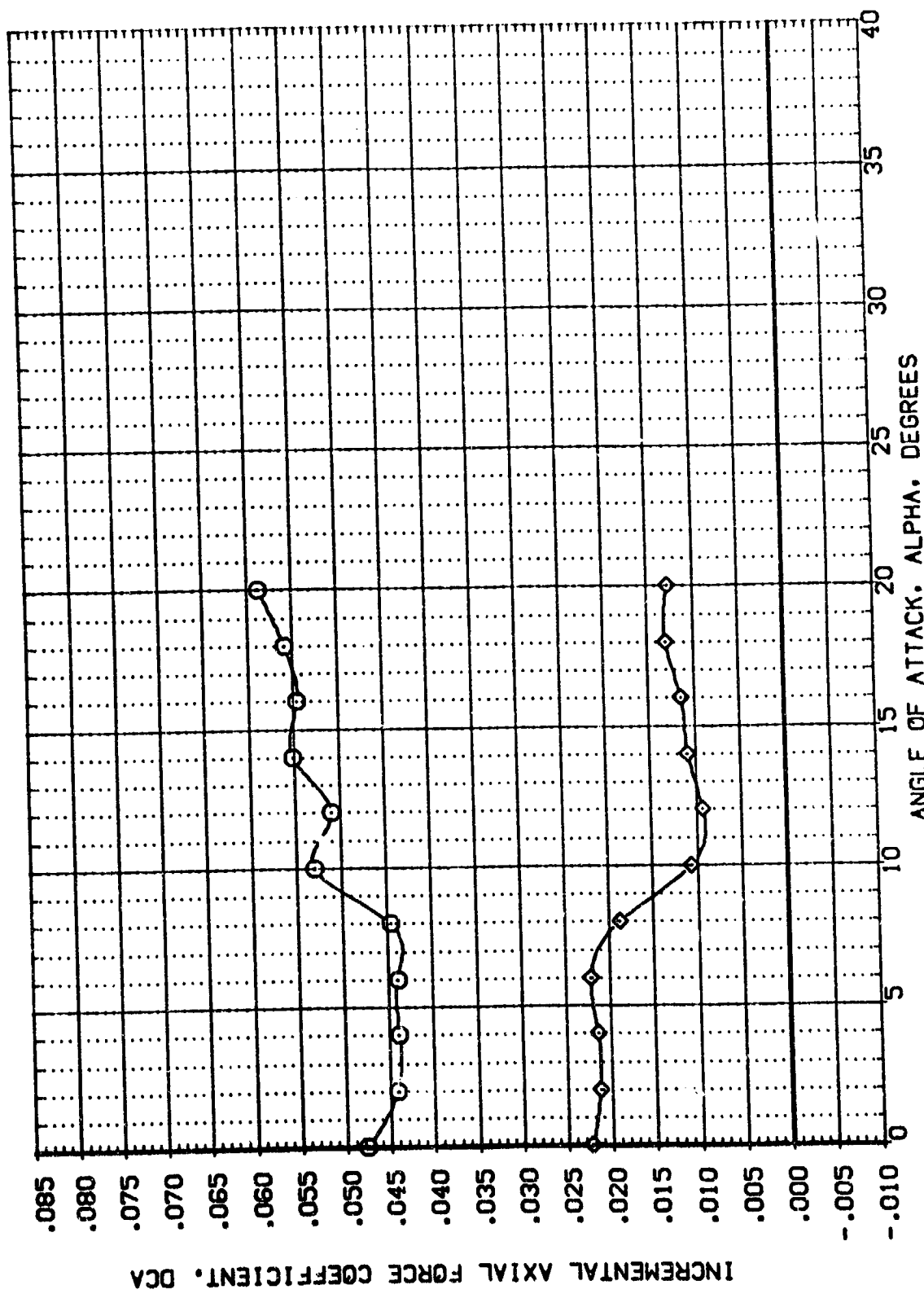


FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139
 (A) MACH = .60

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XMRP 838.7000 IN.
 YMRP .0000 IN.
 ZMRP .0000 IN.
 SCALE .0040

BETA DE DBF
 .000 15.000 13.750
 .000 -40.000 -14.250
 .000 -20.000 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (067530) MSFC 574(0448) ORB 139
 (407564) DATA NOT AVAILABLE
 (787562) MSFC 574(0448) ORB 139

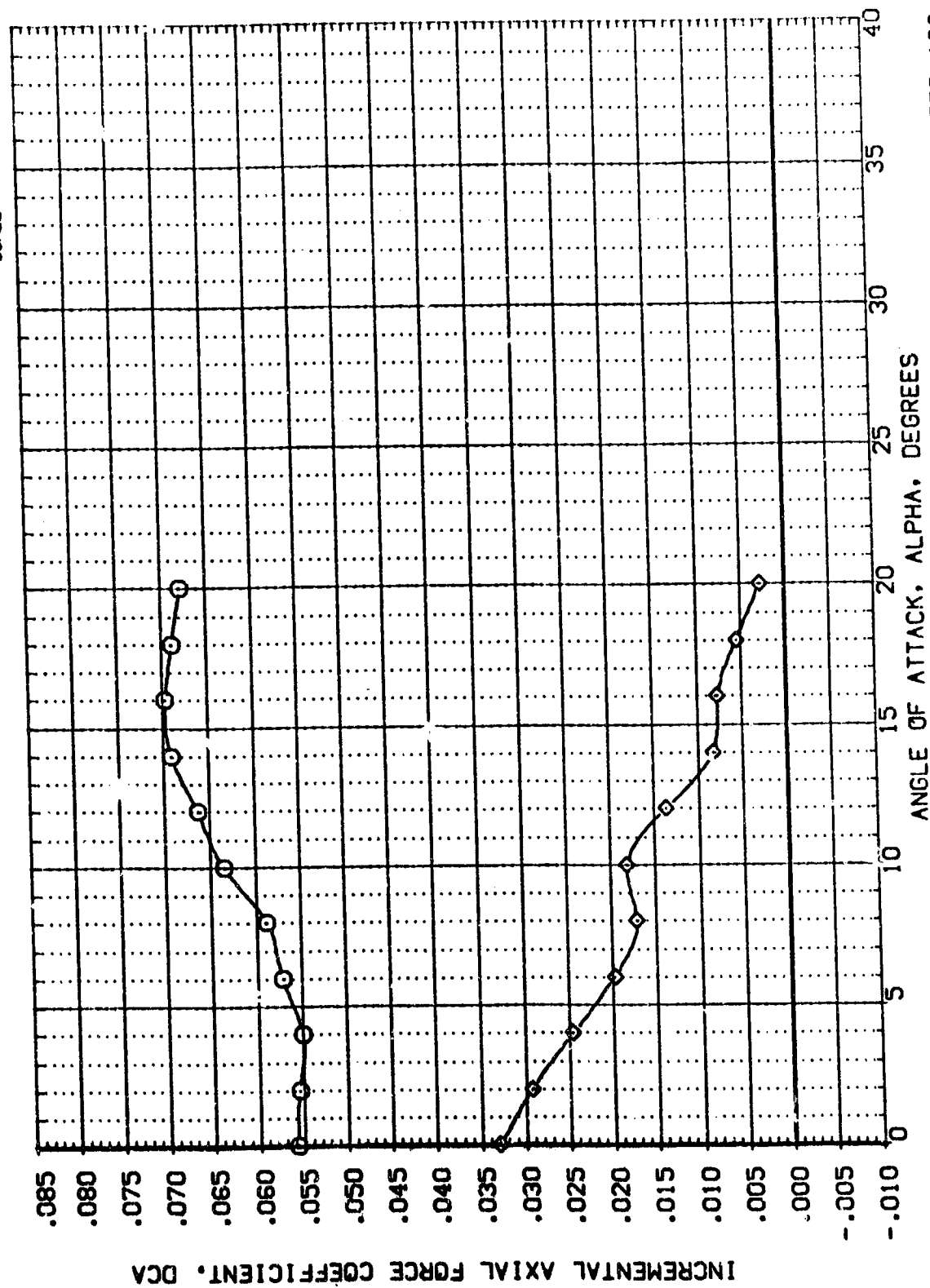


FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139
 (B)MACH = .90

REFERENCE INFORMATION
 SREF 2690.0000 50.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XMRP 838.7000 IN.
 YMRP .0000 IN.
 ZMRP .0000 IN.
 SCALE .0040

BETA DE DBF
 .000 15.000 13.750
 .000 -10.000 -11.250
 .000 -20.000 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087560) HFSC 574(0A48) ORB 139
 (497564) DATA NOT AVAILABLE
 (287562) HFSC 574(0A48) ORB 139

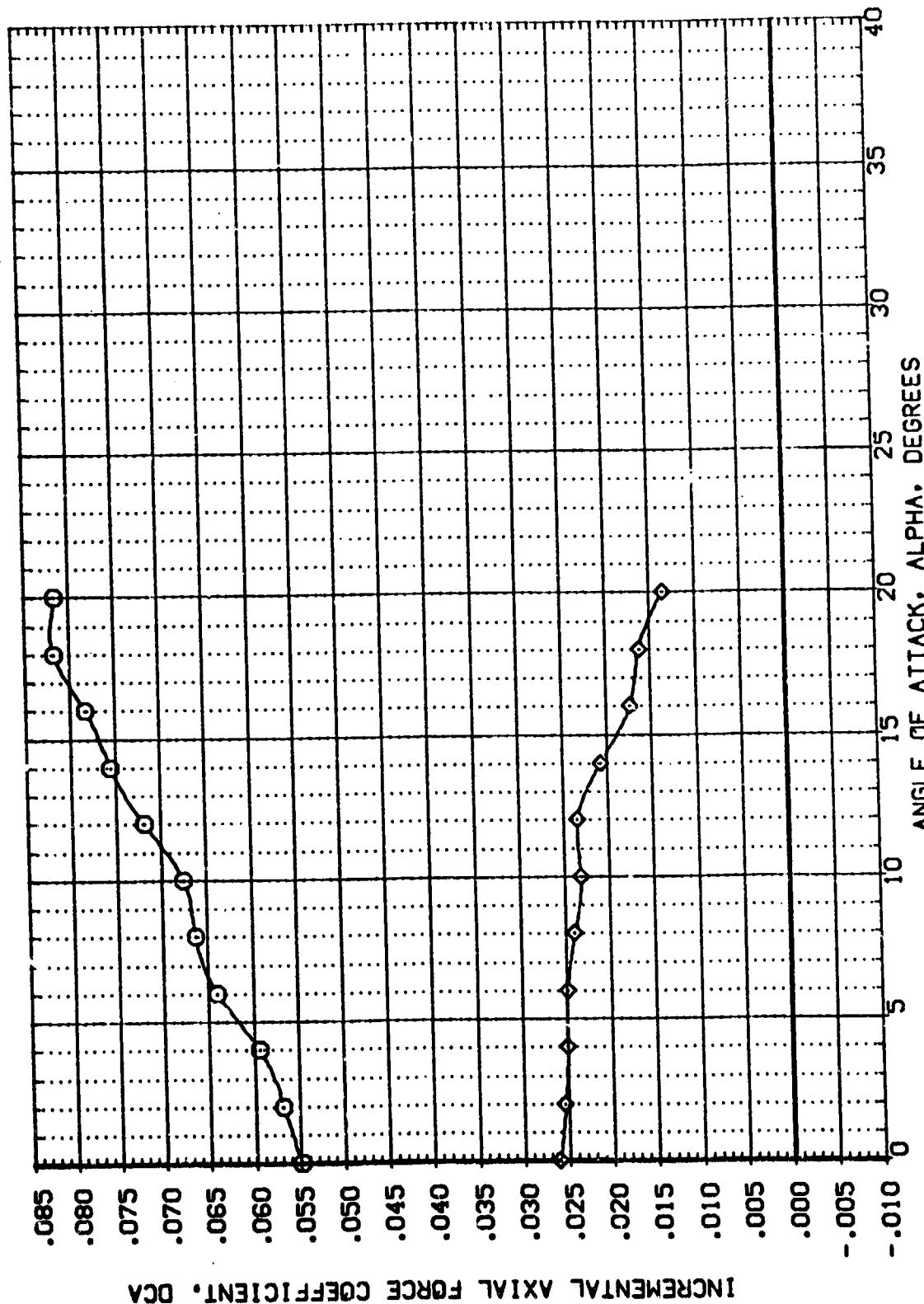


FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139
 (C)MACH = 1.20 PAGE 1519

REFERENCE INFORMATION

SREF	2690.0000	50. FT.
LREF	474.8000	IN.
BREF	926.7000	IN.
XPRP	838.7000	IN.
YPRP	.0000	IN.
ZPRP	.0000	IN.
SCALE	.0040	

BETA DE DBF

.000	15.000	13.750
.000	-40.000	-14.250
.000	-20.000	

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(087560)	MSFC 574(0A48) ORB 139
(187564)	MSFC 574(0A48) ORB 139
(217562)	MSFC 574(0A48) ORB 139

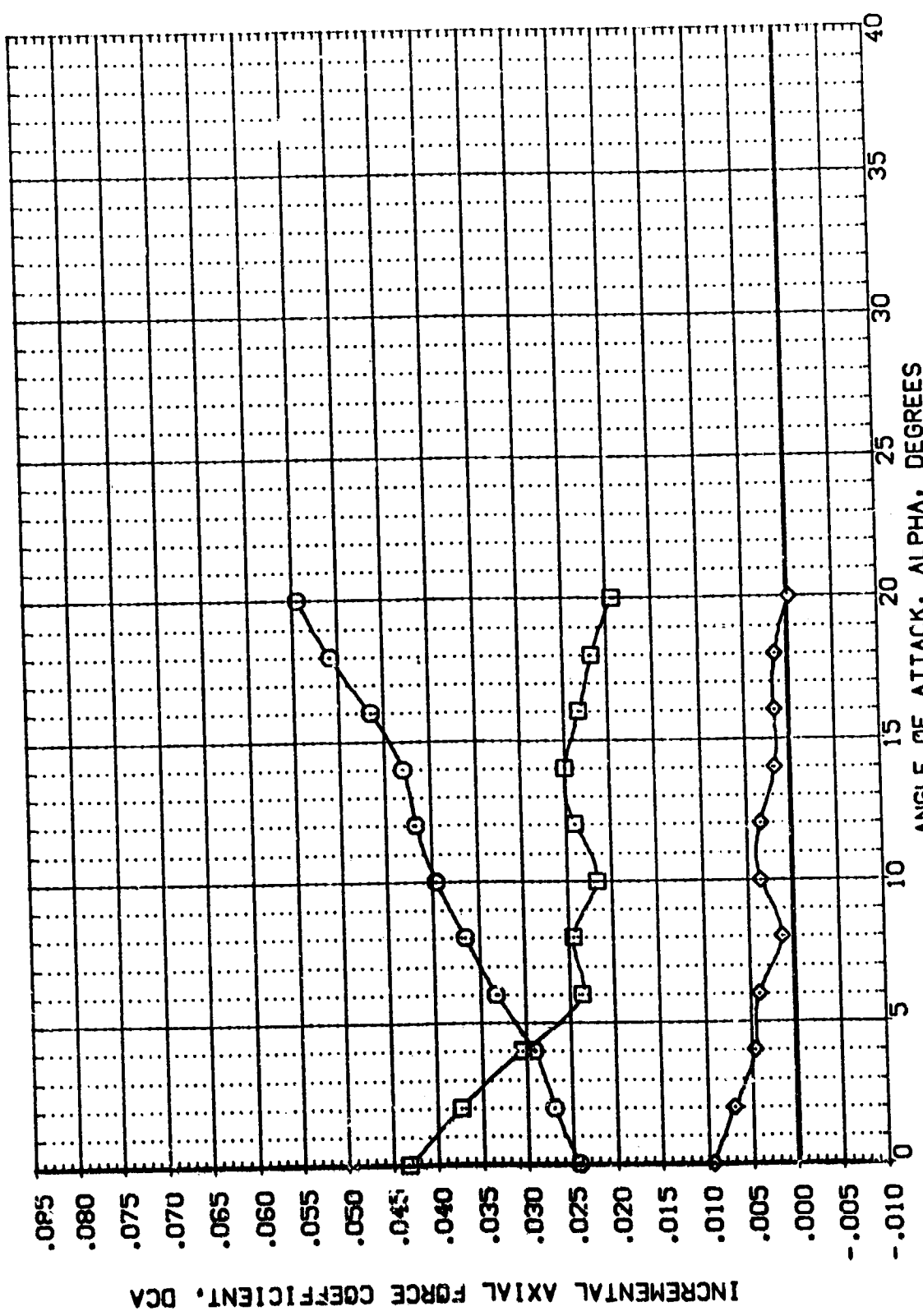


FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139
(0)MACH = 1.96

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 YMRP 838.7000 IN.
 ZMRP .0000 IN.
 SCALE .0040

BETA DE DBF
 .000 15.000 13.750
 .000 -10.000 -14.250
 .000 -20.000 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087560) MSFC 574(DA48) DB 128
 (-8756A) MSFC 574(DA48) DB 139
 (-8756Z) MSFC 574(DA48) DB 139

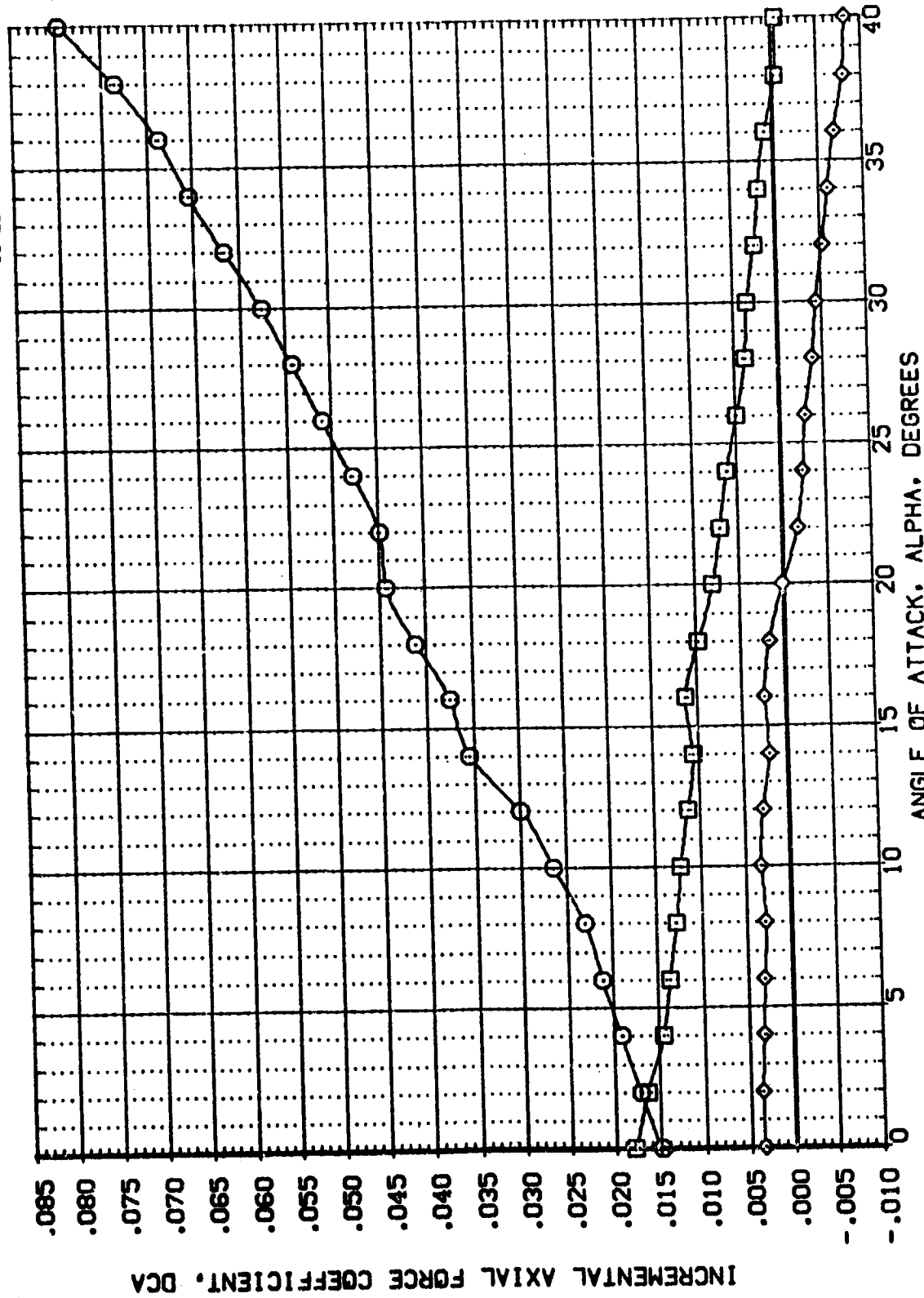


FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139
 (E)MACH = 2.99
 PAGE 1521

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XGRP 838.0000 IN.
 YGRP 0.0000 IN.
 ZGRP 0.0000 IN.
 SCALE .0040

BETA DE DBF
 .000 15.000 13.750
 .000 -40.000 -14.250
 .000 -20.000 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087550) MSFC 574(DA48) ORB 139
 (467554) MSFC 574(DA48) ORB 139
 (287552) MSFC 574(DA48) ORB 139

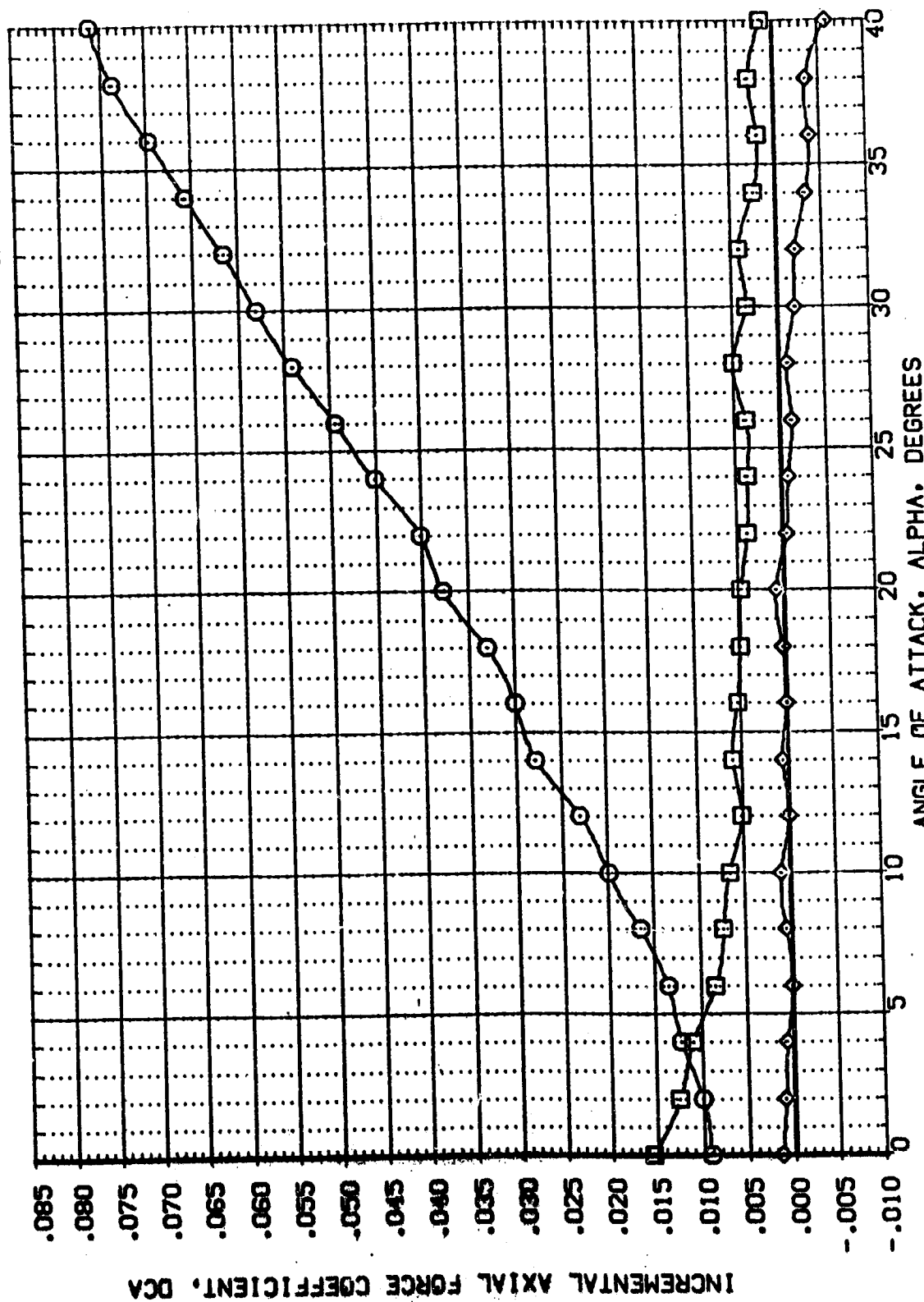


FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139
 (F)MACH = 4.96

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087562) HSC 574(048) ORB 139
 (087564) DATA NOT AVAILABLE
 (287562) HSC 574(048) ORB 139

BETA DE DBF
 .000 15.000 13.750
 .000 -10.000 -14.250
 .000 -20.000

REFERENCE INFORMATION
 SREF 2690.0000 50:FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XTRP 838.7000 IN.
 YTRP .0000 IN.
 ZTRP .0000 IN.
 SCALE .0040

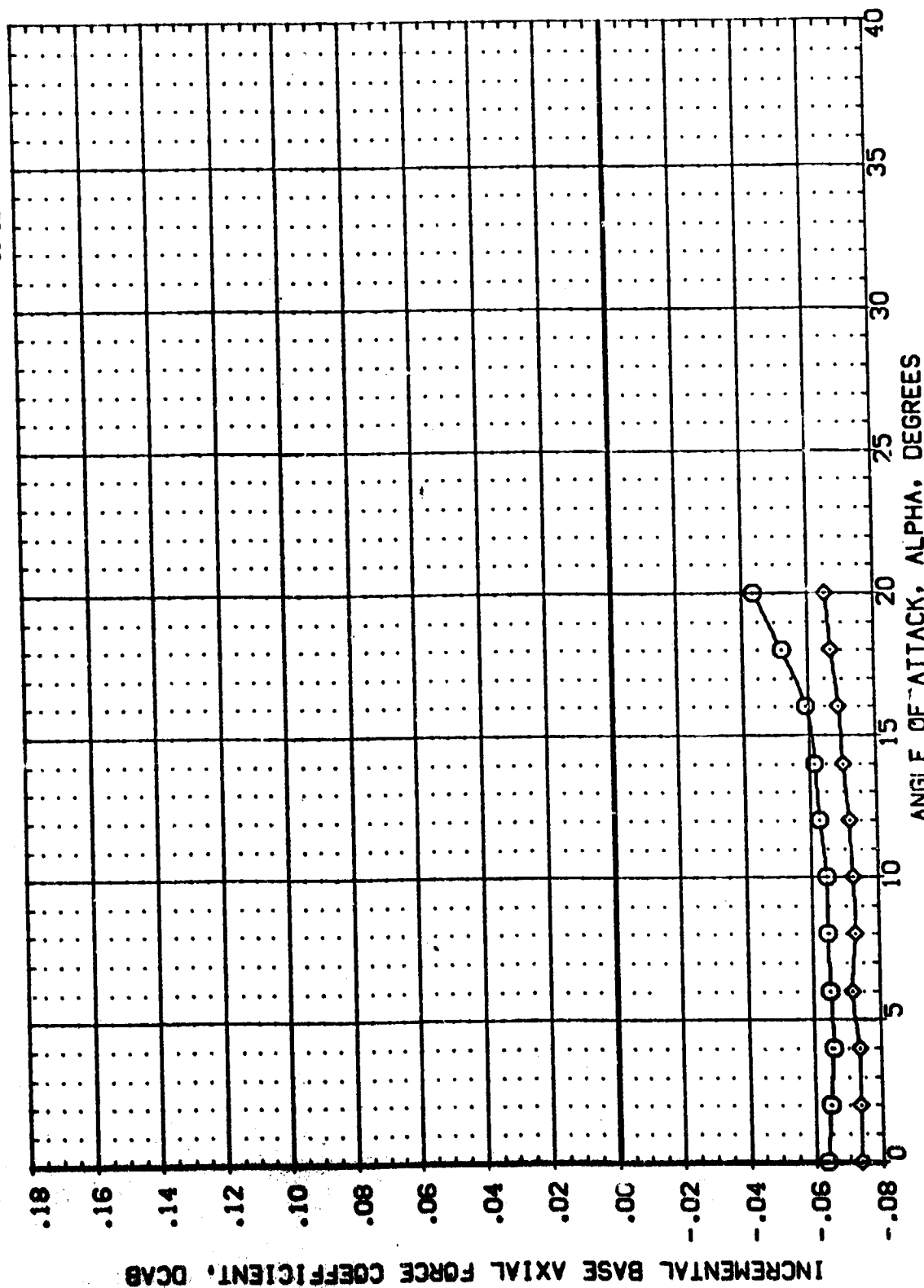


FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139
 (A) MACH = .60

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087560) HSFC 574(OM48) OFB 139
 (487564) DATA NOT AVAILABLE
 (287562) HSFC 574(OM48) OFB 139

BETA DE DBF
 .000 15.000 13.750
 .000 -40.000 -14.250
 .000 -20.000 .000

REFERENCE INFORMATION
 SREF 2650.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 536.7000 IN.
 XTRP 838.7000 IN.
 YTRP .0000 IN.
 ZTRP .0000 IN.
 SCALE .0040

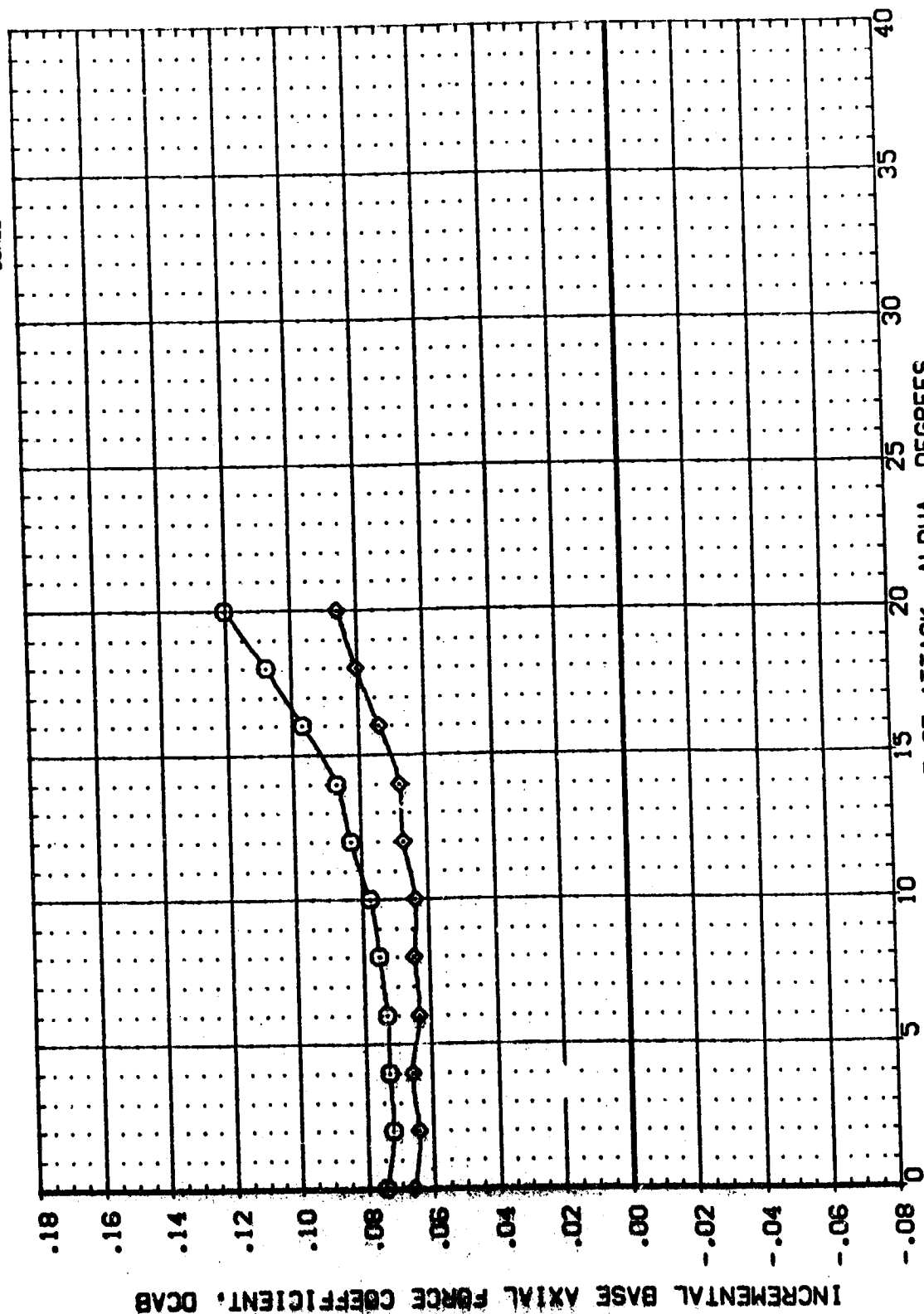


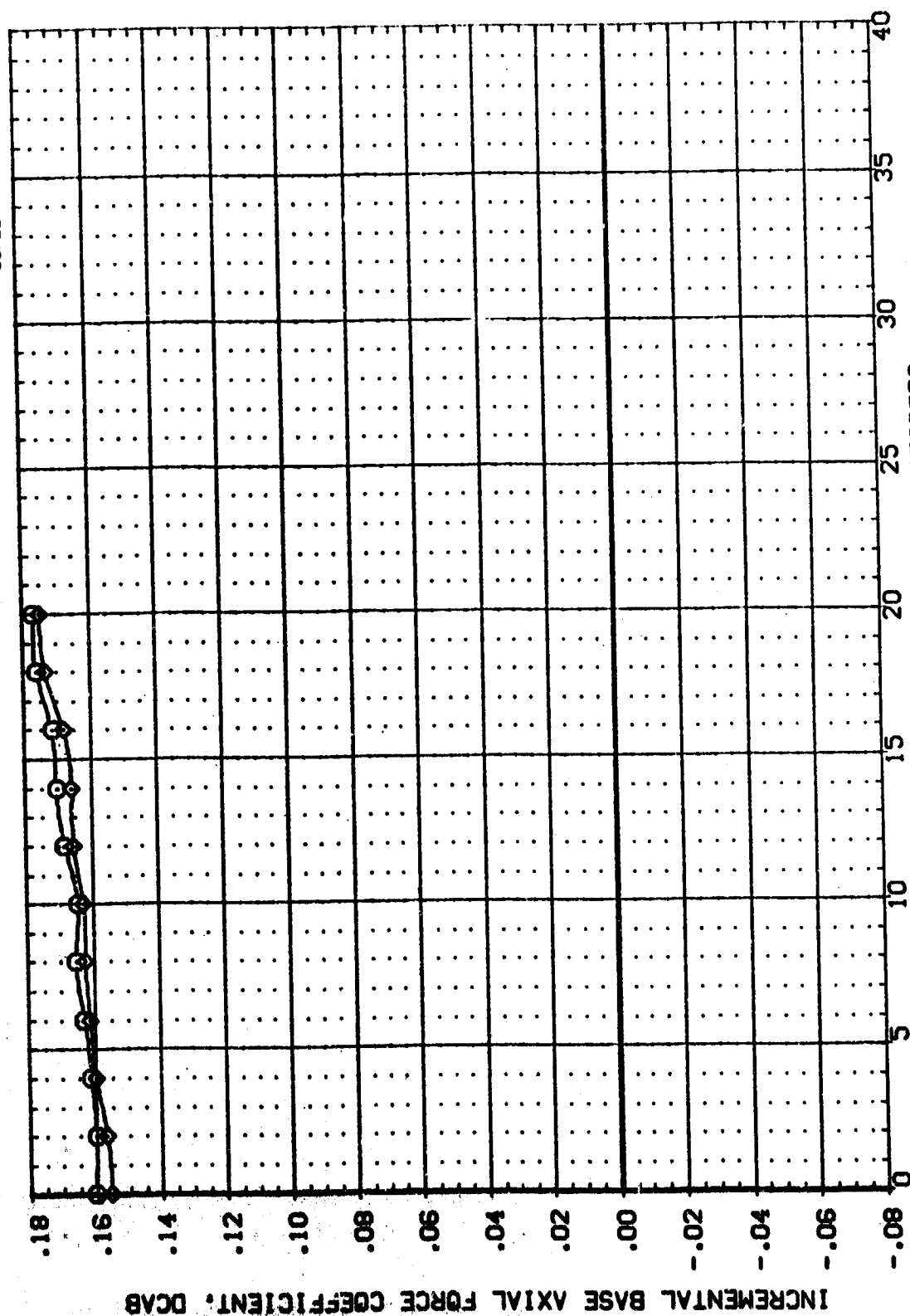
FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139
 (B)MACH = .90



DATA SET-SYMBOL CONFIGURATION DESCRIPTION
(080380) HSC 574(048) ORB 139
(467554) DATA NOT AVAILABLE
(287562) HSC 574(048) ORB 139

BETA DE REF
.000 15.000 13.750
.000 -10.000 -14.250
.000 -20.000 .000

REFERENCE INFORMATION
SREF 2690.0000 SQ.FT.
LREF 474.8000 IN.
BREF 936.7000 IN.
XTRP 838.7000 IN.
YTRP .0000 IN.
ZTRP .0000 IN.
SCALE .0040



ANGLE OF ATTACK, ALPHA, DEGREES

FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139
(CJ)MACH = 1.20 PAGE 1525

DATA SET SYMBOL. CONFIGURATION DESCRIPTION
 (087550) HSFC 574(0448) ORB 139
 (467554) HSFC 574(0448) ORB 139
 (287552) HSFC 574(0448) ORB 139

BETA DE DBF
 .000 15.000 13.750
 .000 -40.000 -14.250
 .000 -20.000 .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XMRP 838.7000 IN.
 YMRP .0000 IN.
 ZMRP .0000 IN.
 SCALE .0010

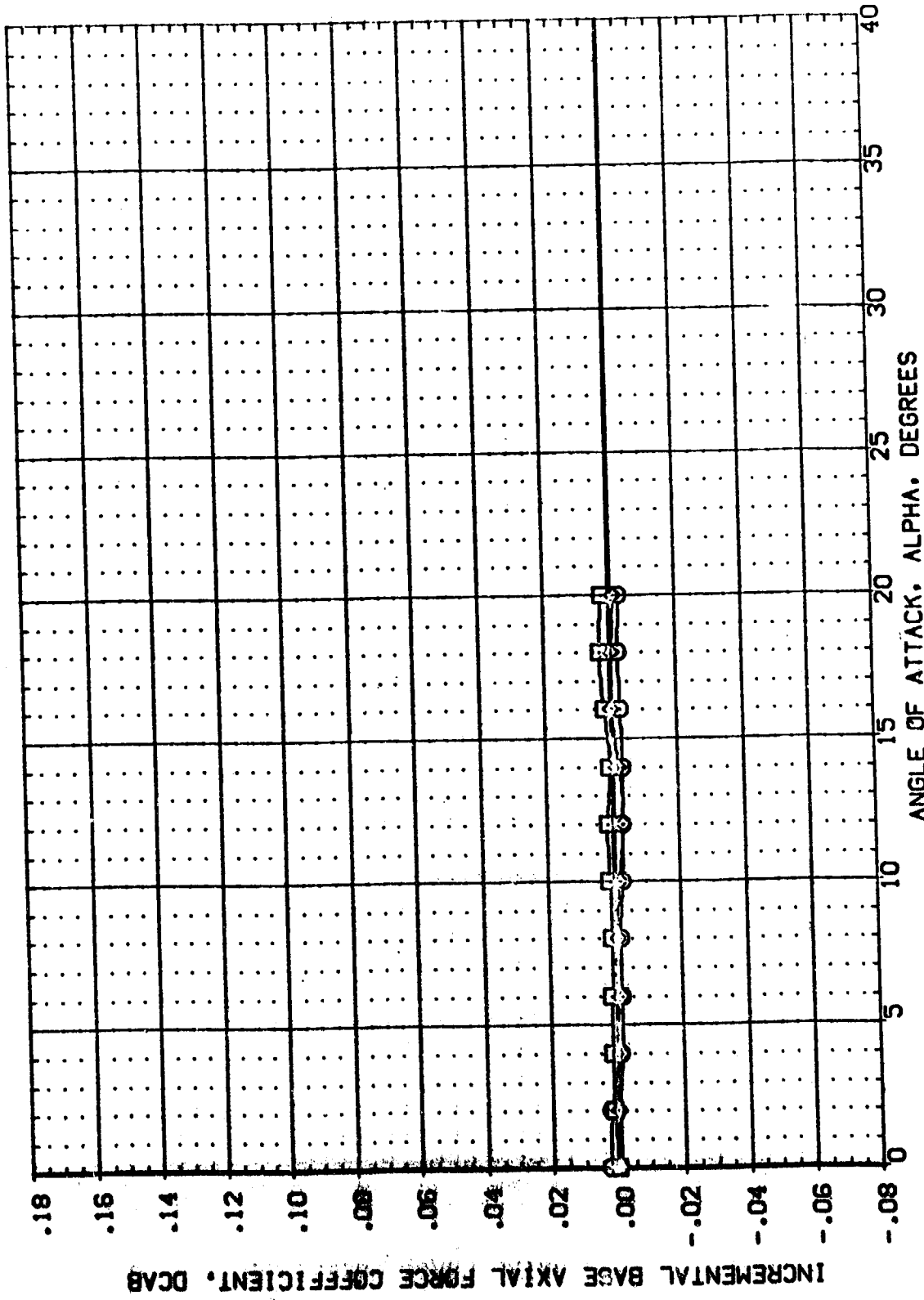


FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139
 (D)MACH = 1.96
 PAGE 1526

DATA SET SYMBO. CONFIGURATION DESCRIPTION

(087550) MSFC 574(0448) 098 139
 (487554) MSFC 574(0448) 098 139
 (287552)

BETA DE DBF

.000 15.000 13.750
 .000 -10.000 -14.250
 .000 -20.000

REFERENCE INFORMATION

SREF 2690.0000 50. FT.
 LREF 474.8000 IN.
 BREF 536.7000 IN.
 XPRP 836.7000 IN.
 YPRP .0000 IN.
 ZPRP .0000 IN.
 SCALE .0040

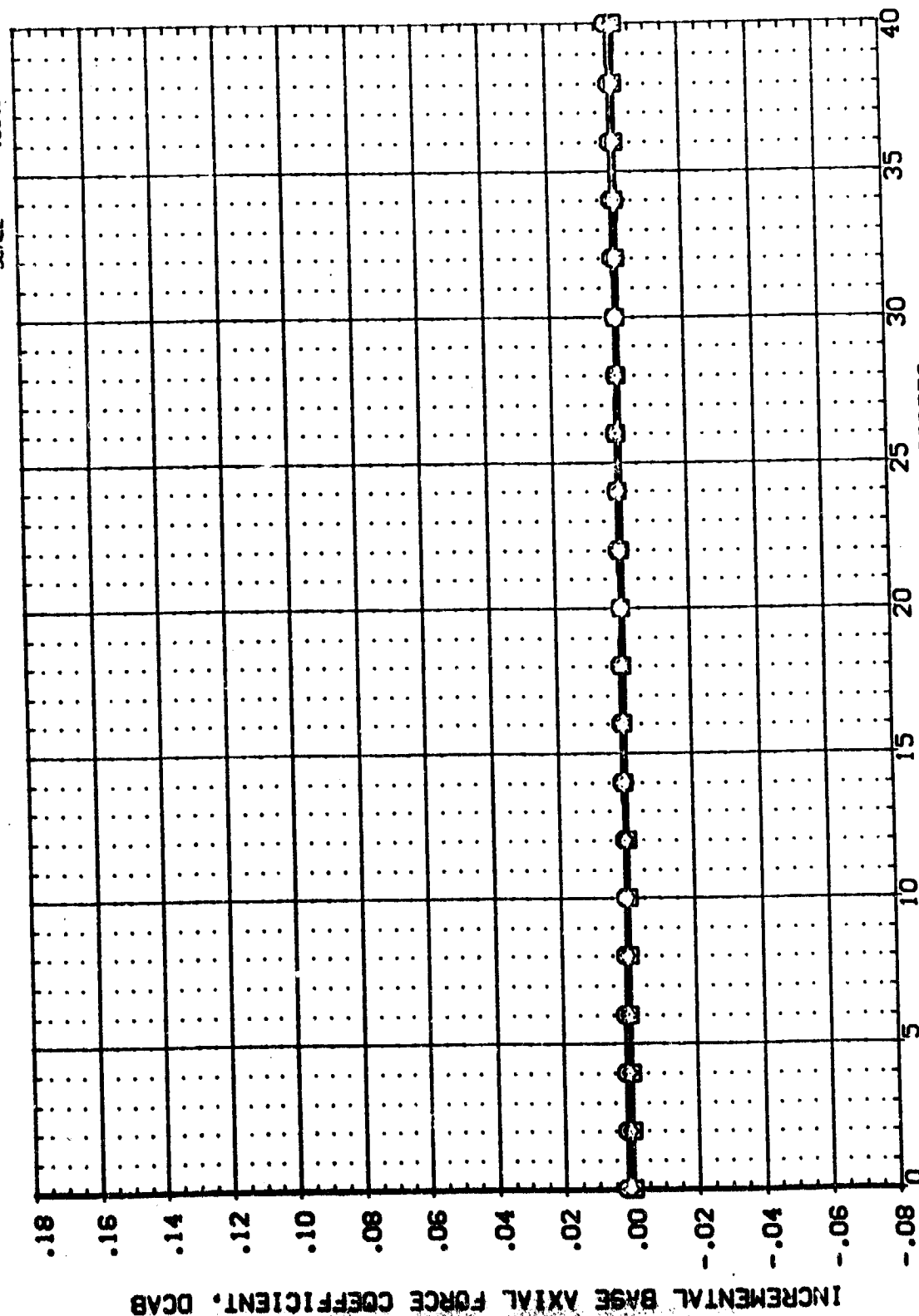


FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139
 (E)MACH = 2.99

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087560) MSC 574(DA48) DB 139
 (+87564) MSC 574(DA48) DB 139
 (Z87562)

BETA DE DBF
 .000 15.000 13.750
 .000 -10.000 -14.250
 .000 -20.000 .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 YPRP 838.7000 IN.
 ZPRP .0000 IN.
 SCALE .0040

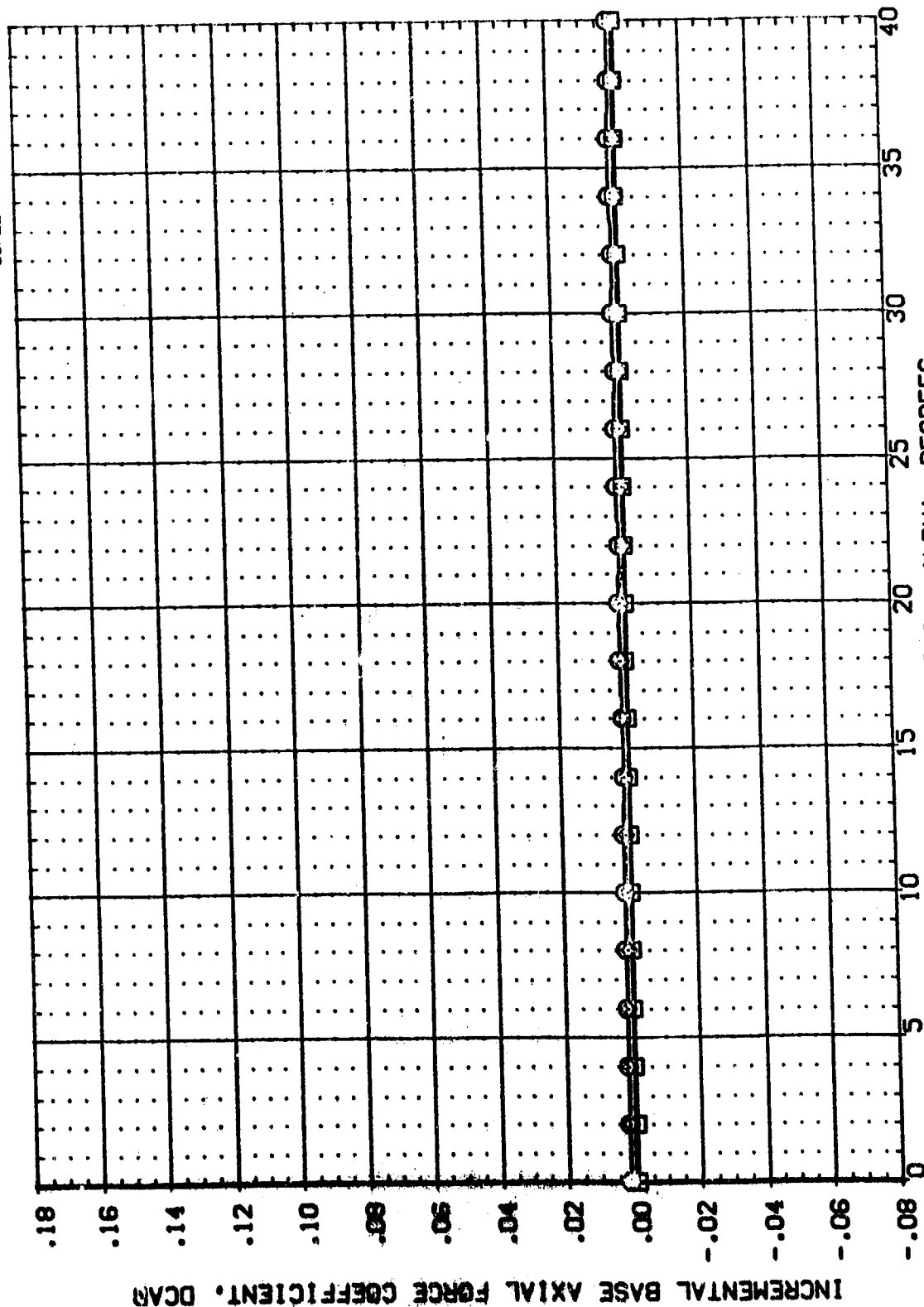


FIG. 40 INCREMENTAL MAXIMUM SURFACE DEFLECTION EFFECTIVENESS FOR ORBITER 139

(F)MACH = 4.96

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BRFP 936.7000 IN.
 XREF 838.7000 IN.
 YREF 0000 IN.
 ZREF 0000 IN.
 SCALE 00-10

BETA DE DSF
 .000 15.000 13.750
 .000 -10.000 -14.250
 .000 -20.000 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087577) MSFC 574(0A48) ORB 139 V/ALT NOSE
 (087581) MSFC 574(0A48) ORB 139 V/ALT NOSE
 (287579) MSFC 574(0A48) ORB 139 V/ALT NOSE

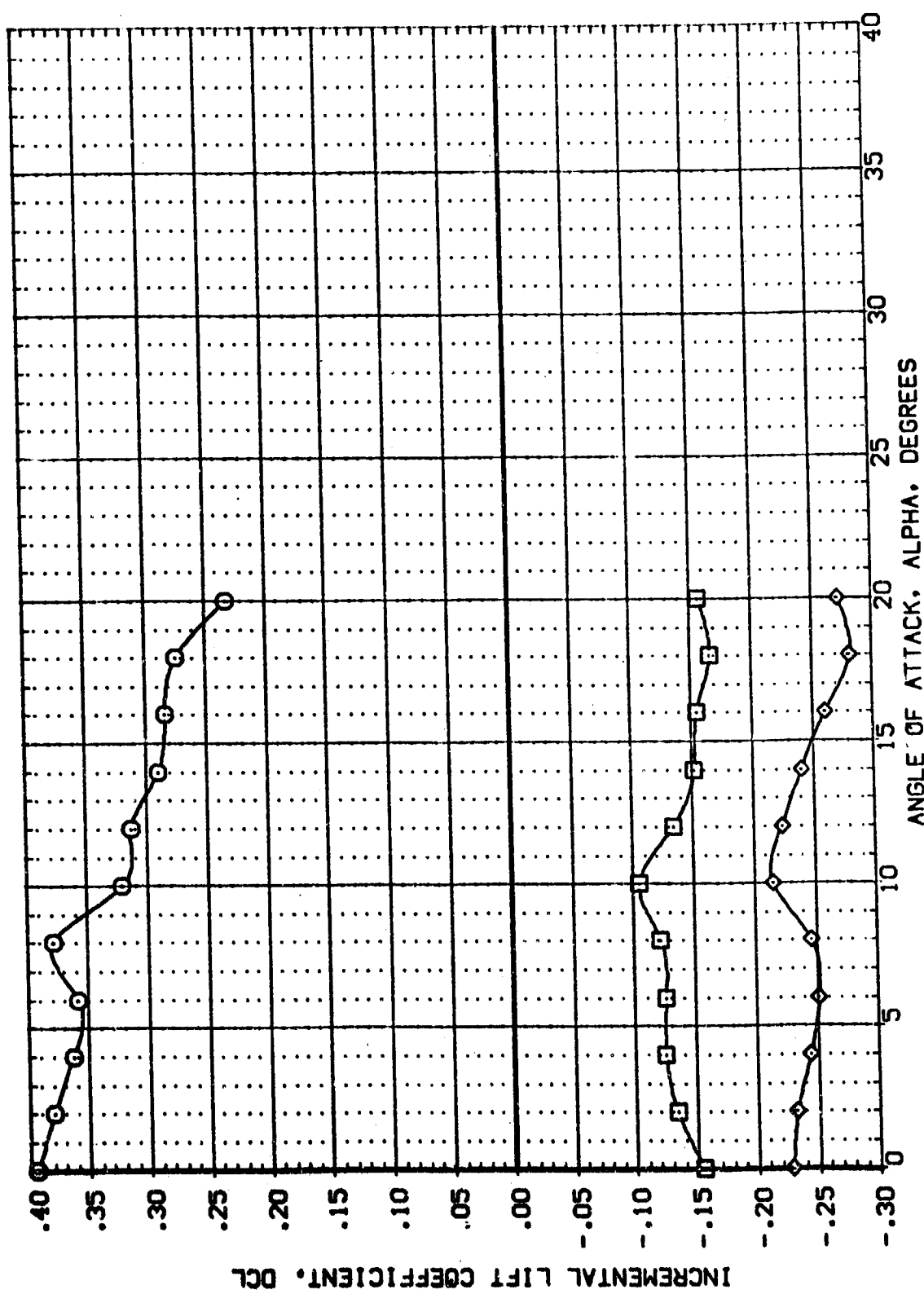


FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE
 (A)MACH = .60
 PAGE 1529

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(087577) MSFC 574(0A48) ORB 139 V/ALT NOSE

(087581) MSFC 574(0A48) ORB 139 V/ALT NOSE

(287579) MSFC 574(0A48) ORB 139 V/ALT NOSE

BETA DE DBF

.000 15.000 13.750

.000 -10.000 -14.250

.000 -20.000 .000

REFERENCE INFORMATION

SREF 2690.0000 50. FT.

LREF 474.8000 IN.

BREF 936.7000 IN.

YPRP 838.7000 IN.

ZPRP .0000 IN.

SCALE .0040

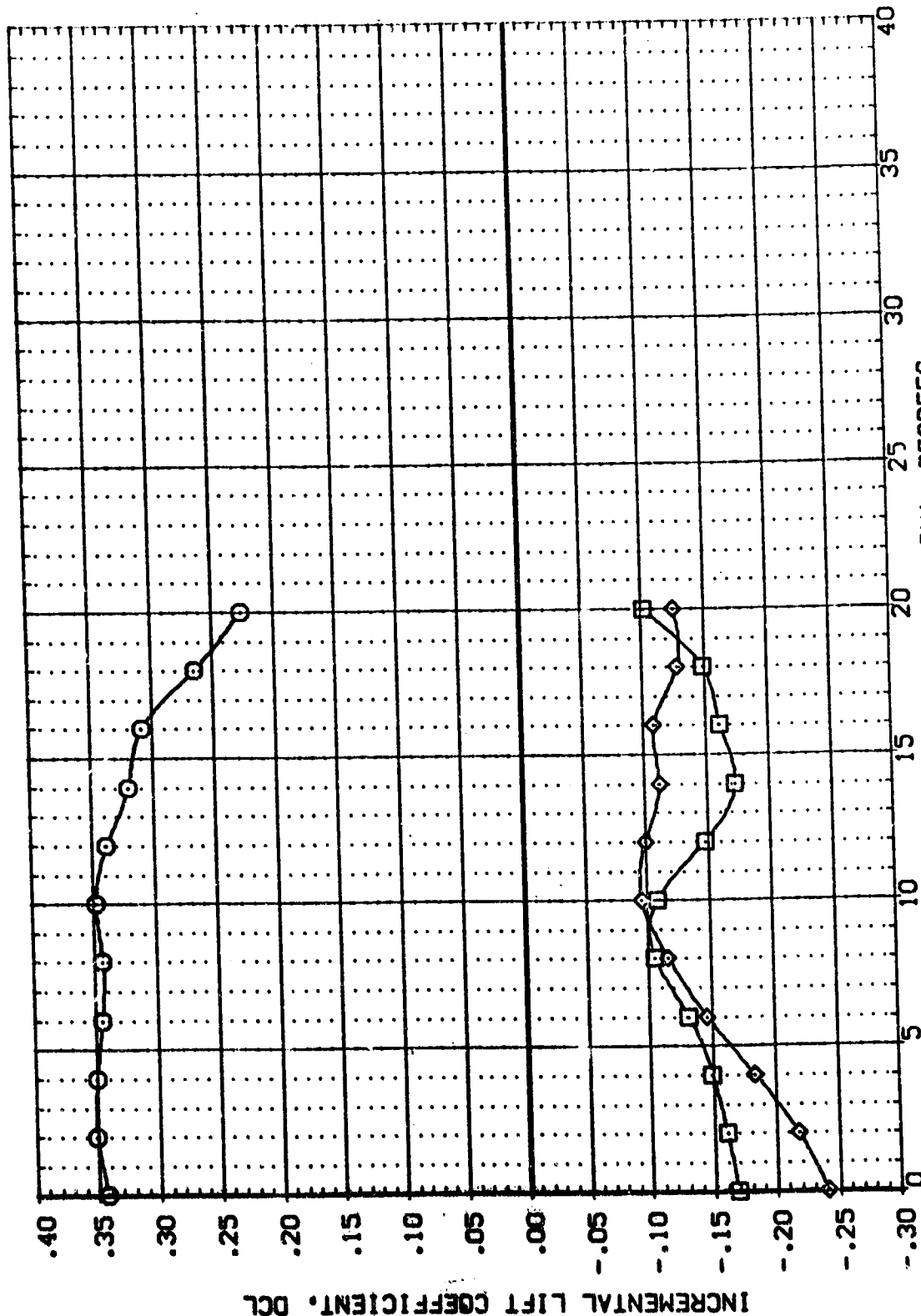


FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE

(B)MACH = .90

PAGE 1530



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(087577) MSFC 574(0448) ORB 139 V/ALT NOSE

(087581) MSFC 574(0448) ORB 139 V/ALT NOSE

(087579) MSFC 574(0448) ORB 139 V/ALT NOSE

BETA DE DEF

.000 15.000 13.750

.000 -10.000 -14.250

.000 -20.000

REFERENCE INFORMATION

SREF 2690.0000 Q.F.T.

LREF 474.8000 IN.

BREF 936.7000 IN.

XPRP 838.7000 IN.

YPRP .0000 IN.

ZPRP .0000 IN.

SCALE .0040

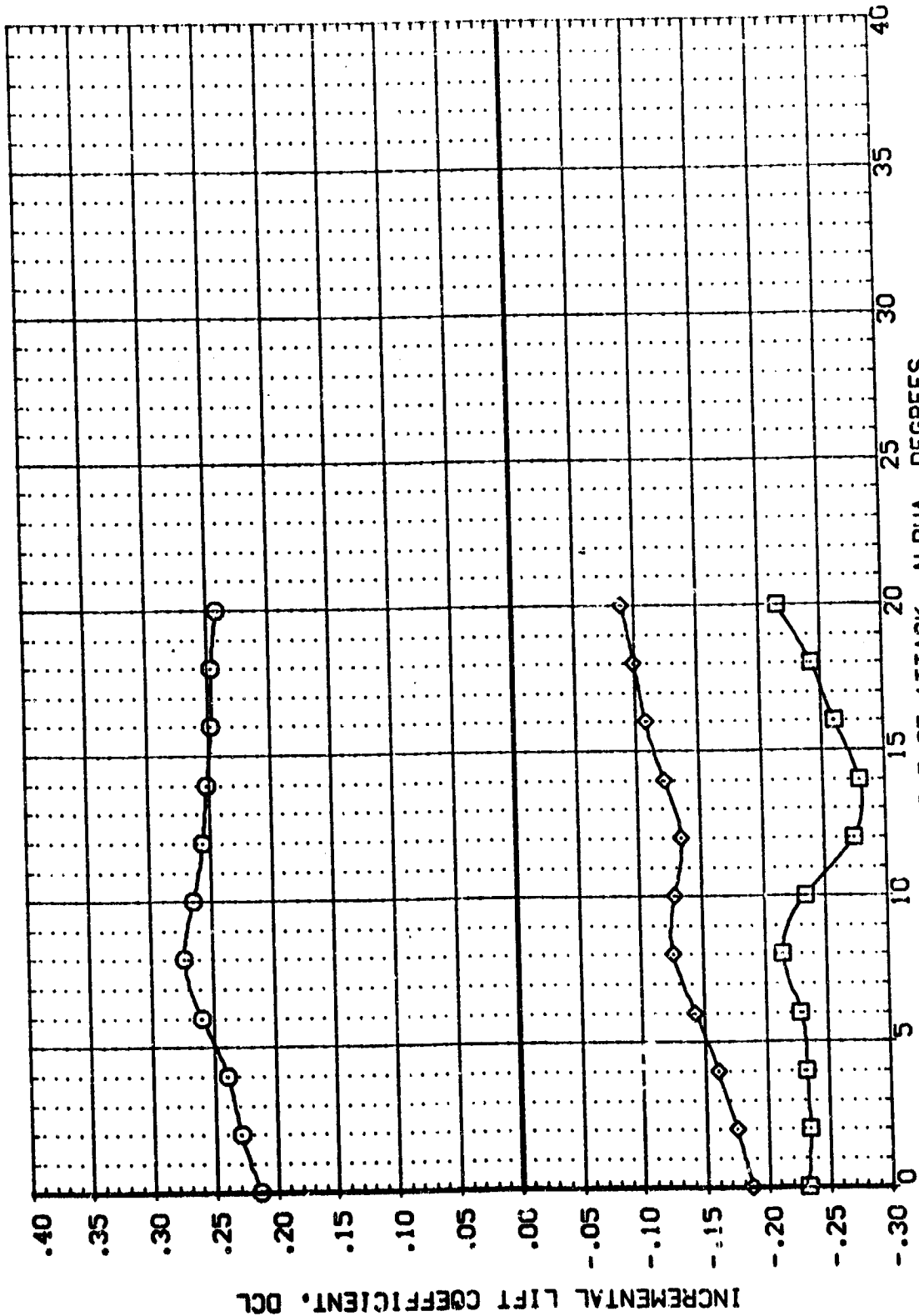


FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE

(C)MACH = 1.20

PAGE 1531

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(087577) MSFC 574(0A48) ORB 139 V/ALT NOSE
 (087581) MSFC 574(0A48) ORB 139 V/ALT NOSE
 (787579) MSFC 574(0A48) ORB 139 V/ALT NOSE

BETA DE DBF

.000 15.000 13.750
 .000 -40.000 -14.250
 .000 -20.000

REFERENCE INFORMATION

SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 938.7000 IN.
 XMRP 838.7000 IN.
 YMRP .0000 IN.
 ZMRP .0000 IN.
 SCALE .0040

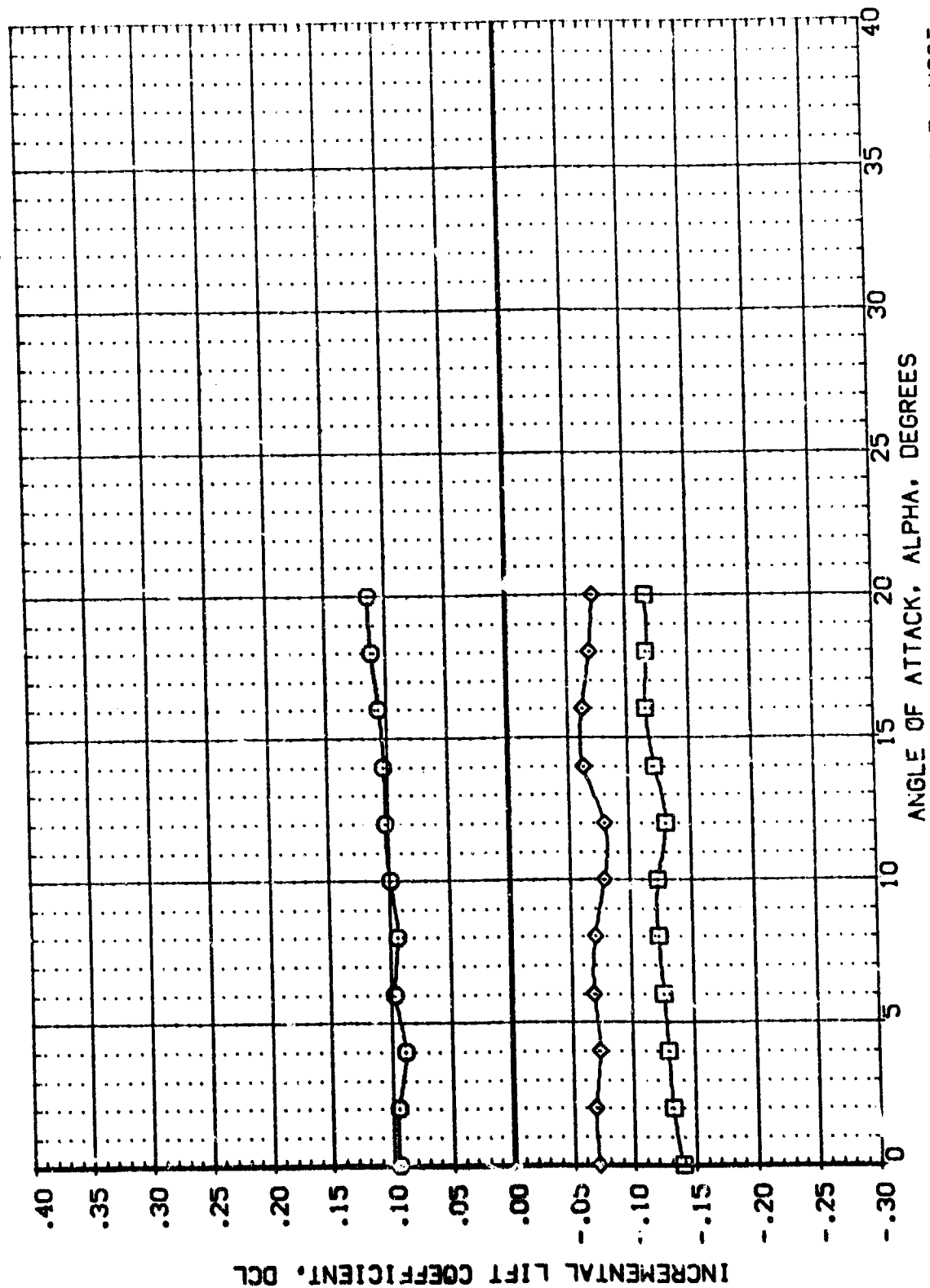


FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE
 (D)MACH = 1.96

DATA SET SYMBOL CONFIGURATION DESCRIPT:
 (087577) H57C 574(DA48) ORB 139 V/ALT NOSE
 (087581) H57C 574(DA48) ORB 139 V/ALT NOSE
 (287579) H57C 574(DA48) ORB 139 V/ALT NOSE

BETA DE DSF
 .000 15.000 13.750
 .000 -40.000 -14.250
 .000 -20.000 .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XPRP 838.0000 IN.
 YPRP .0000 IN.
 ZPRP .0000 IN.
 SCALE .0040

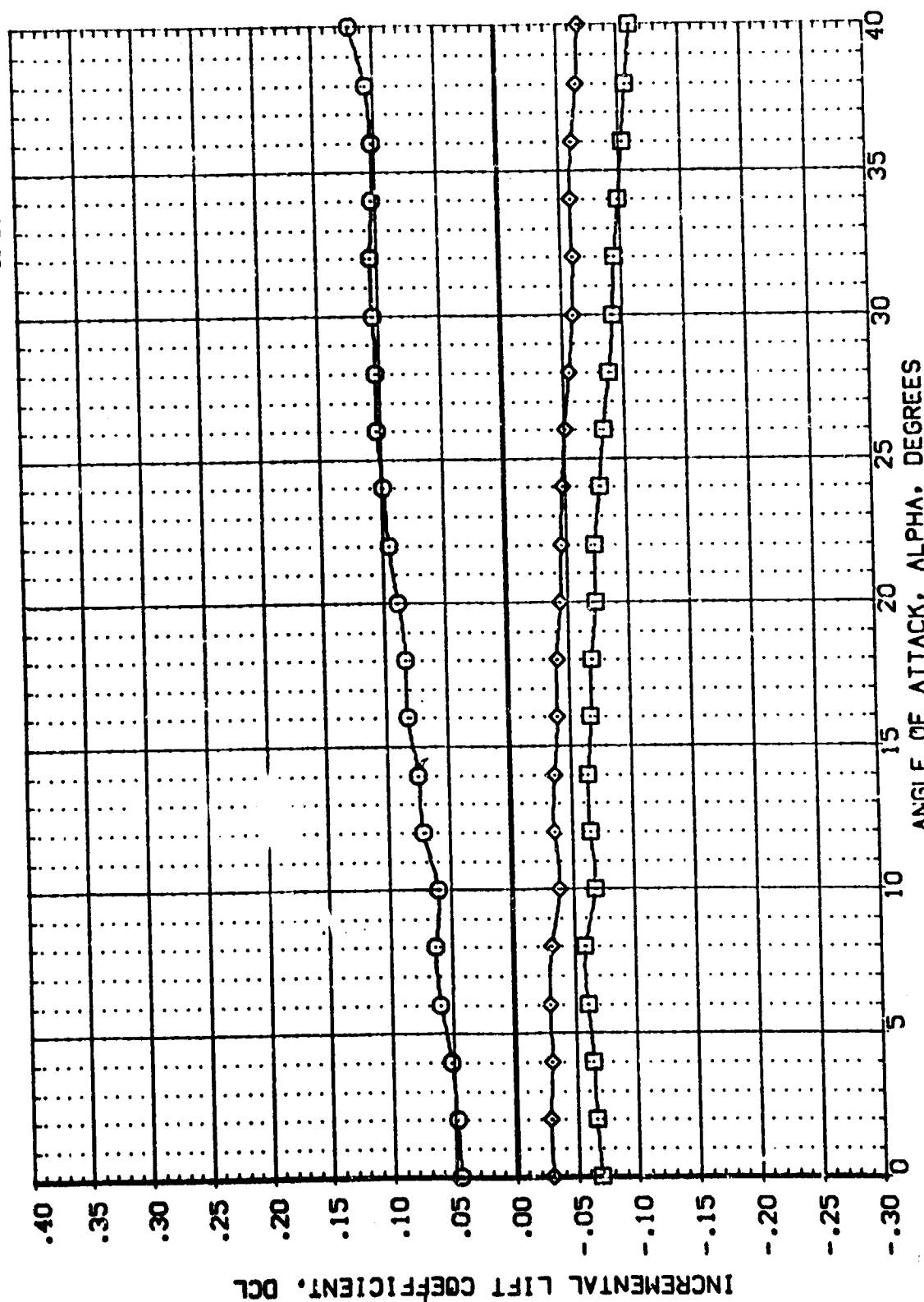


FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE
 (E)MACH = 2.99
 PAGE 1533

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087577) MSFC 574(0448) ORB 139 V/ALT NOSE
 (087581) MSFC 574(0448) ORB 139 V/ALT NOSE
 (287579) MSFC 574(0448) ORB 139 V/ALT NOSE

BETA DE DBF
 .000 15.000 13.750
 .000 -10.000 -14.750
 .000 -20.000 .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BRREF 936.7000 IN.
 XMRP 838.7000 IN.
 YMRP .0000 IN.
 ZMRP .0000 IN.
 SCALE .0040

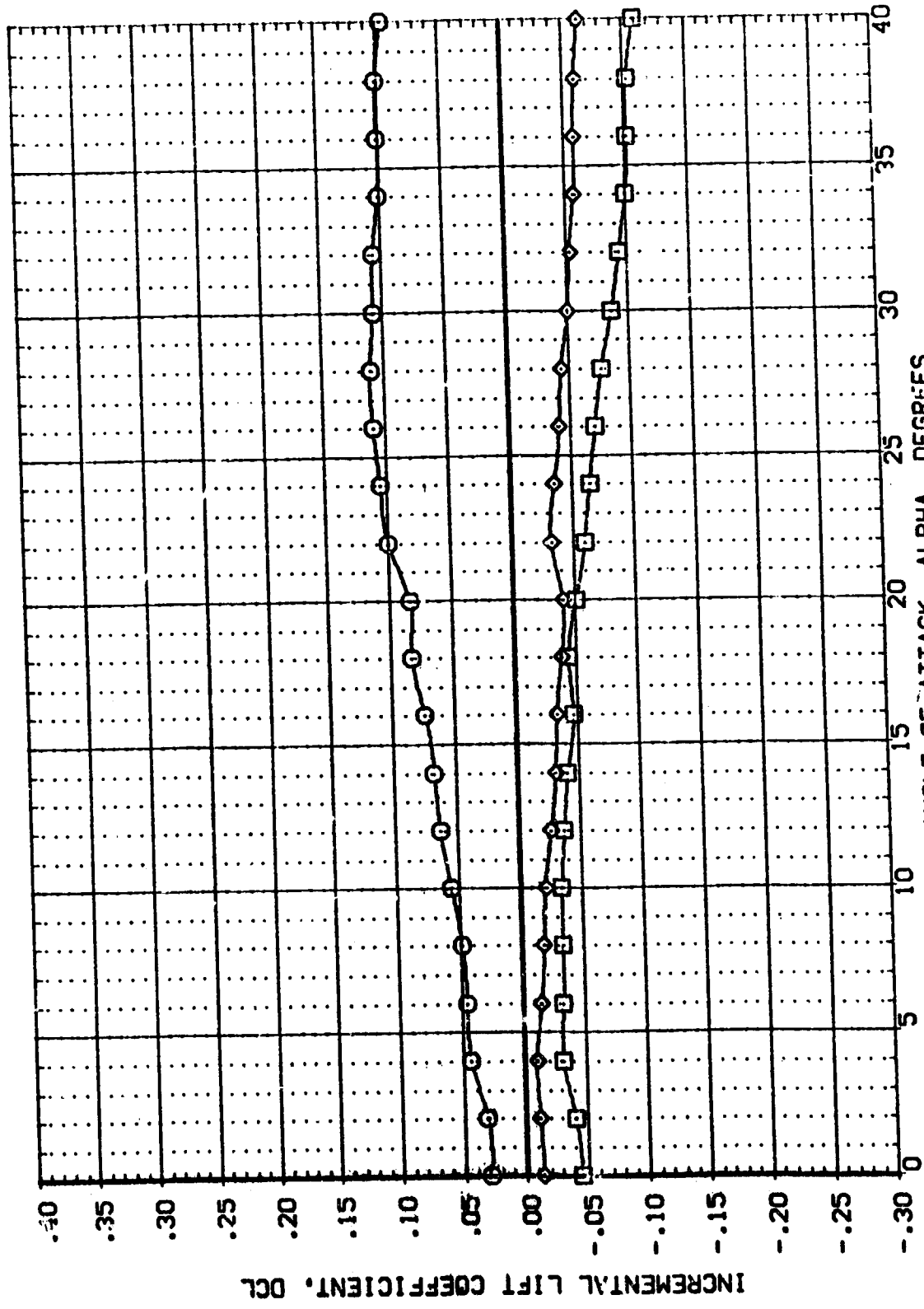


FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE
 (F)MACH = 4.96



DATA SET SYMBOL CONFIGURATION DESCRIPTION BETA DE DBF REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	DBF	REFERENCE INFORMATION
(087577)	HSFC 574(OA48) ORB 139 V/ALT NOSE	.000	15.000	13.750	SREF 2690.0000 SQ.FT.
(087581)	HSFC 574(OA48) ORB 139 V/ALT NOSE	.000	-10.000	-14.250	LREF 474.8000 IN.
(287575)	HSFC 574(OA48) ORB 139 V/ALT NOSE	.000	-20.000	.000	BREF 936.7000 IN.
					YMRP 838.7000 IN.
					YMRP .0000 IN.
					ZMRP .0000 IN.
					SCALE .0040

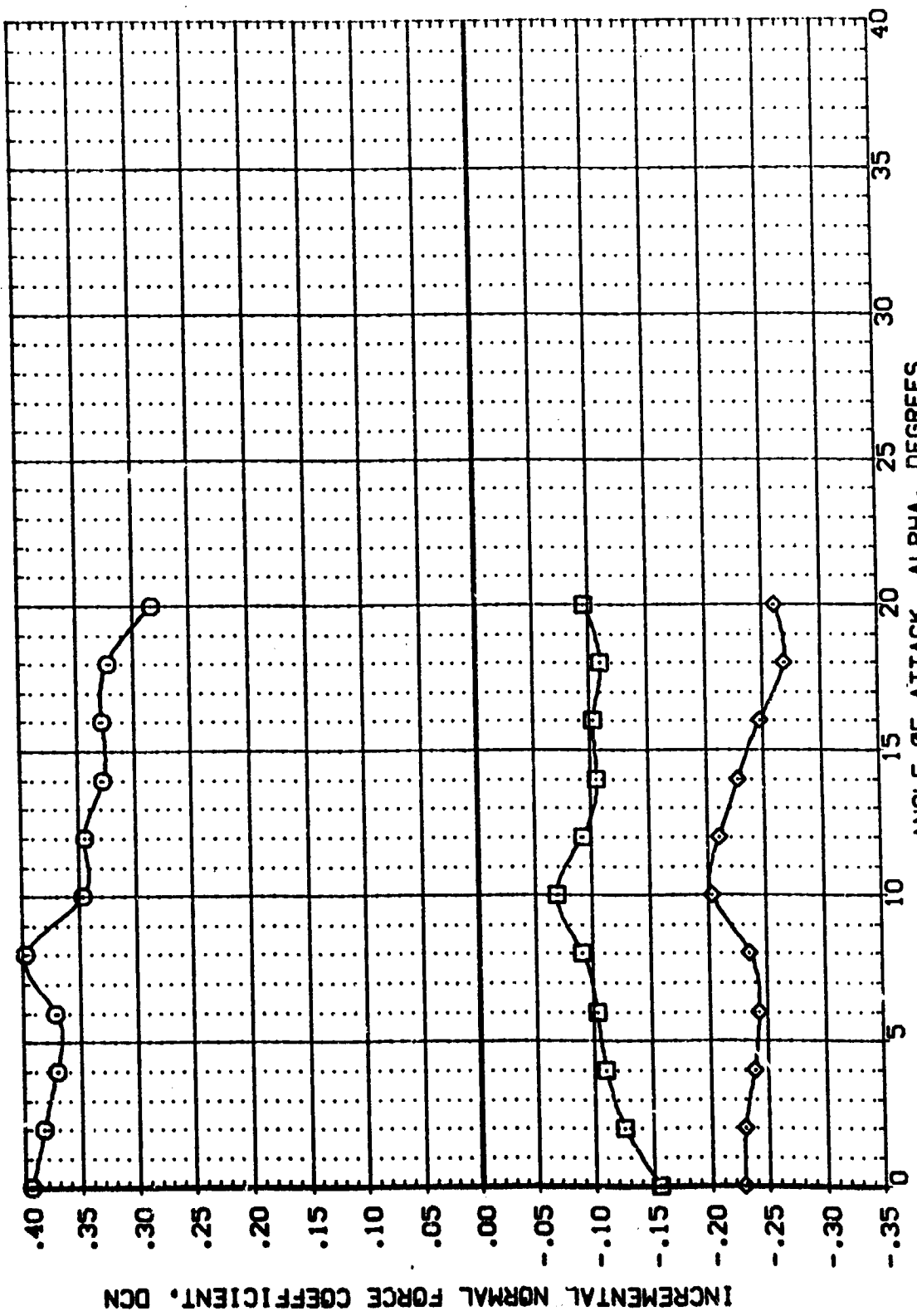


FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE

(A)MACH = .60

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REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.6000 IN.
 BREF 936.7000 IN.
 XREF 838.7000 IN.
 YREF .0000 IN.
 ZREF .0000 IN.
 SCALE .0040

BETA DE DBF
 .000 15.000 13.750
 .000 -40.000 -14.250
 .000 -20.000 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087577) HSC 574(DM8) ORB 139 V/ALT NOSE
 (087581) HSC 574(DM8) ORB 139 V/ALT NOSE
 (087579) HSC 574(DM8) ORB 139 V/ALT NOSE

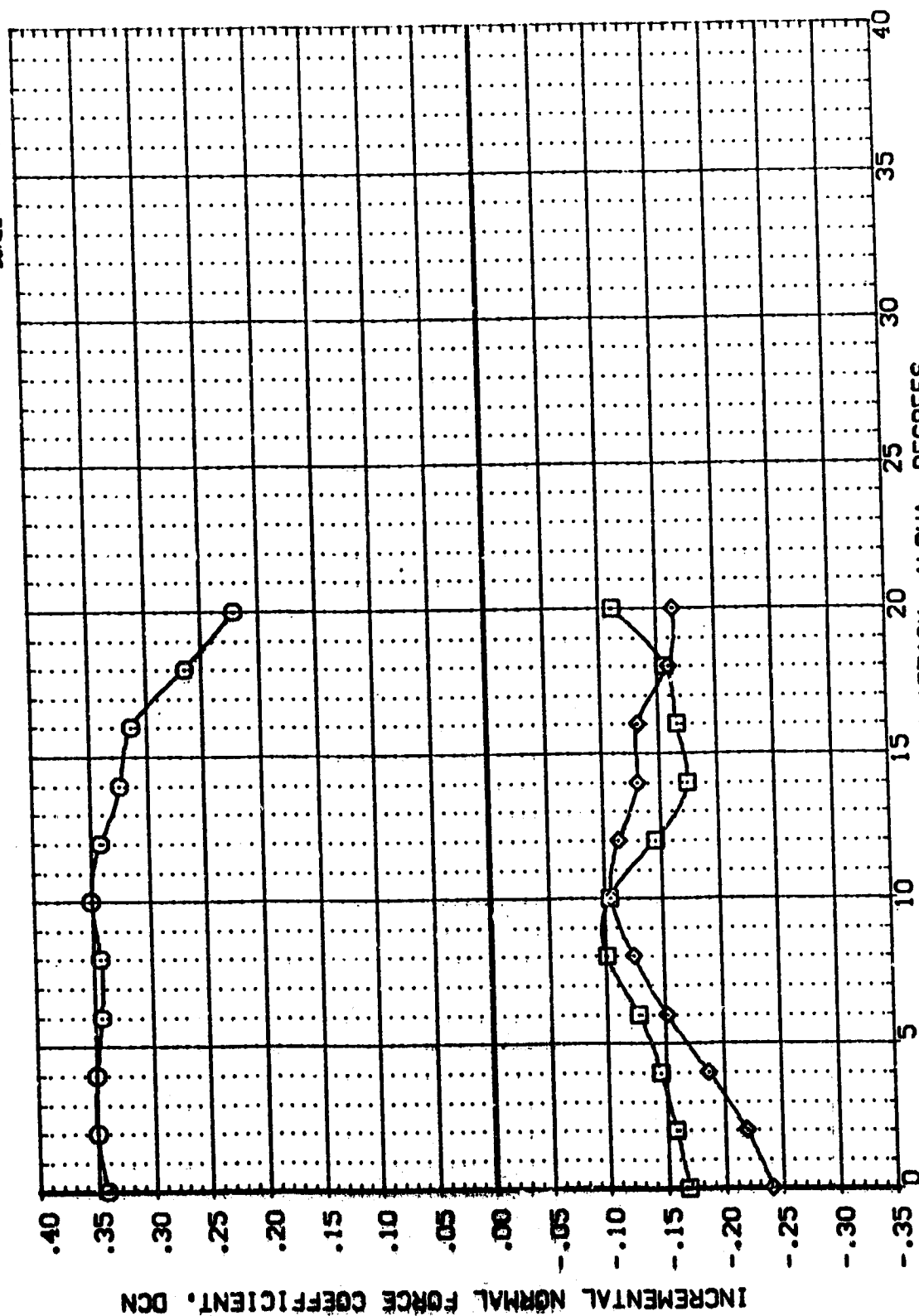


FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE
 [B]MACH = .90
 PAGE 1536

REFERENCE INFORMATION
 SREF 2650.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XREF 838.7000 IN.
 YREF .0000 IN.
 ZREF .0000 IN.
 SCALE .0010

BETA DE DBF
 .000 15.000 13.750
 .000 -10.000 -14.250
 .000 -20.000 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087277) H5TC 57A(CA48) ORB 139 V/ALT NOSE
 (087281) H5TC 57A(CA48) ORB 139 V/ALT NOSE
 (287578) H5TC 57A(CA48) ORB 139 V/ALT NOSE

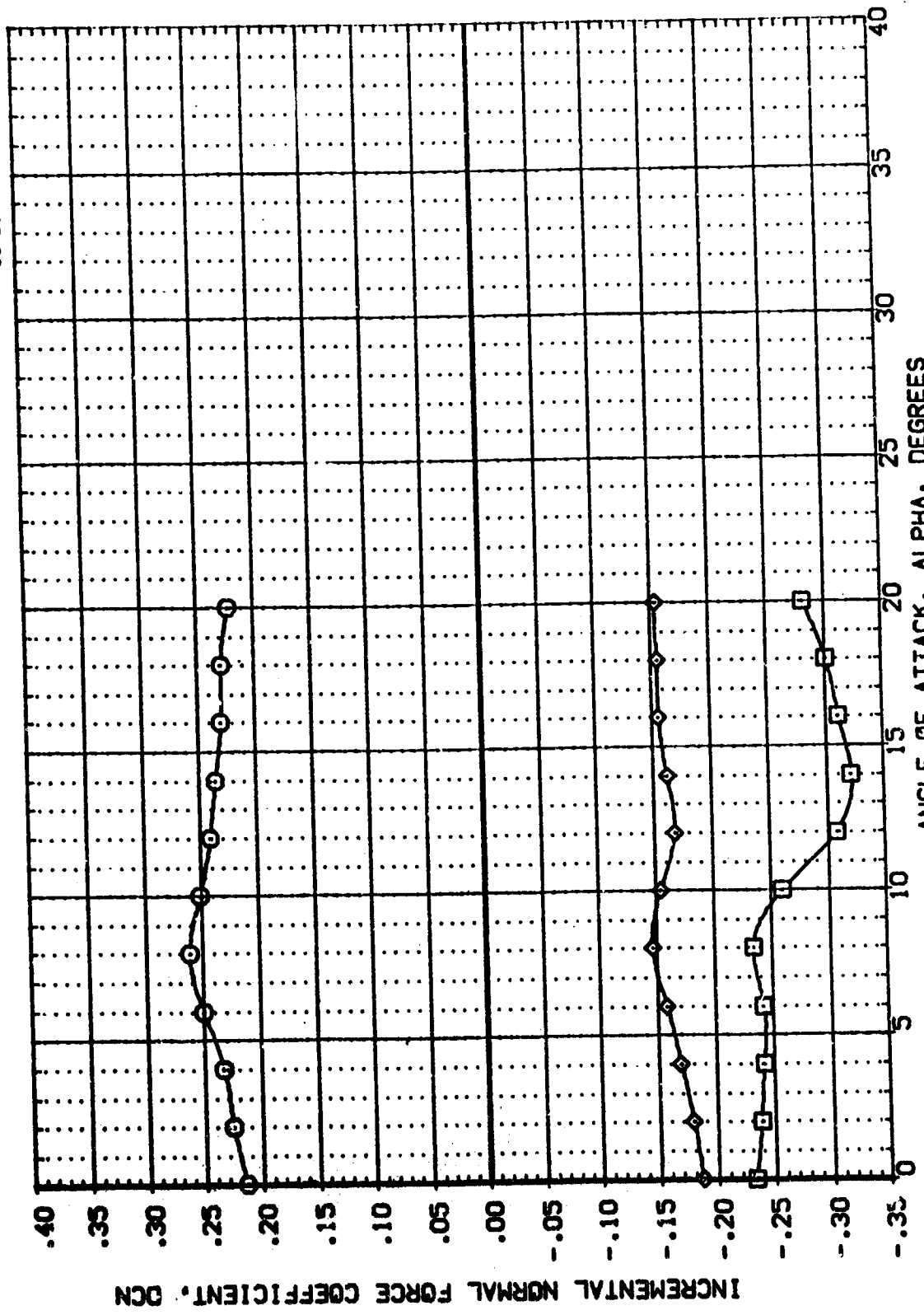


FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE
 (C)MACH = 1.20
 PAGE 1537

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(087577) HSC 574(048) ORB 139 V/ALT NOSE
 (087581) HSC 574(048) ORB 139 V/ALT NOSE
 (287579) HSC 574(048) ORB 139 V/ALT NOSE

BETA DE DBF

.000 15.000 13.750
 .000 -40.000 -14.250
 .000 -20.000 .000

REFERENCE INFORMATION

SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 536.7000 IN.
 XGRP 638.7000 IN.
 YGRP .0000 IN.
 ZGRP .0000 IN.
 SCALE .0040

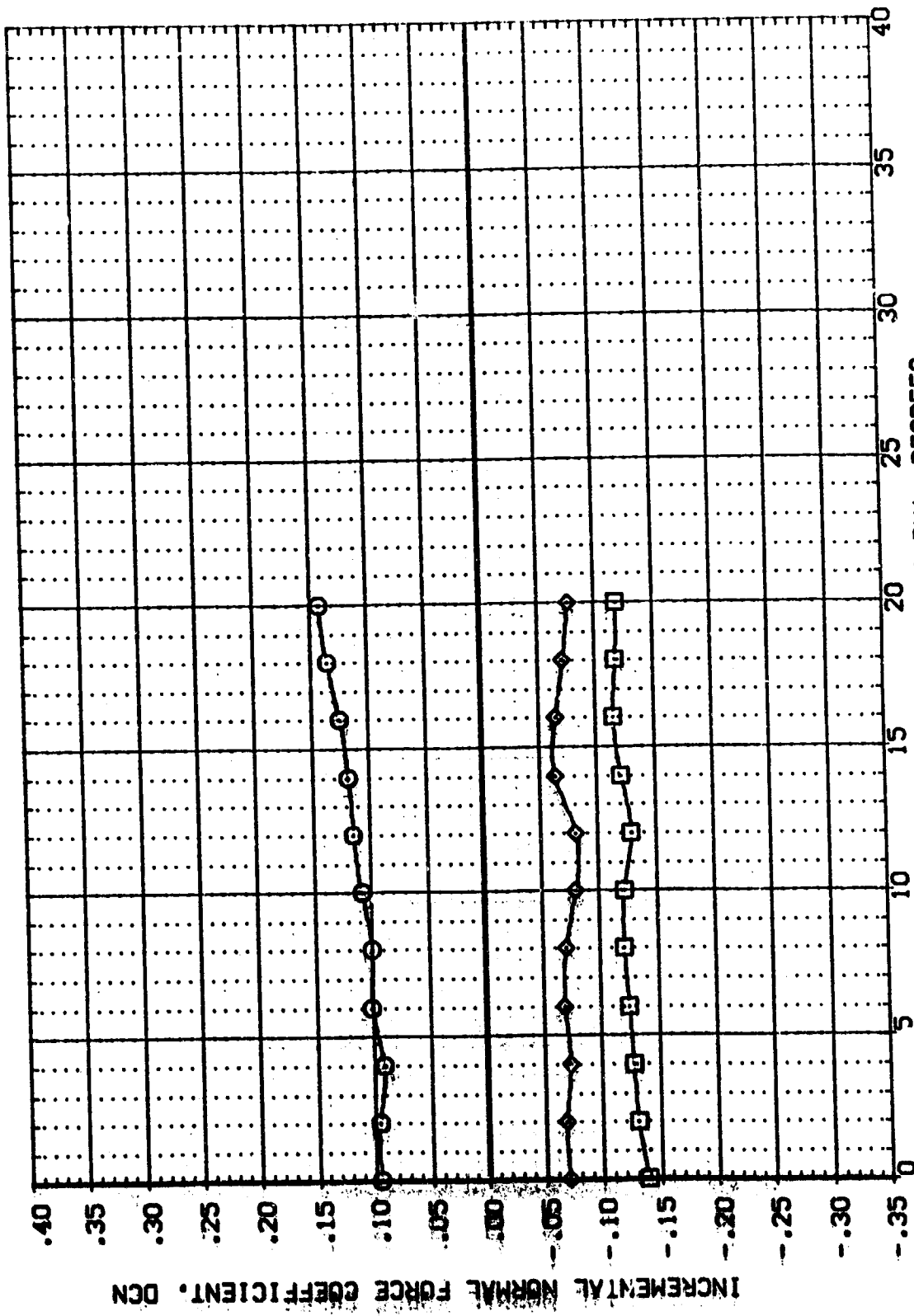


FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE

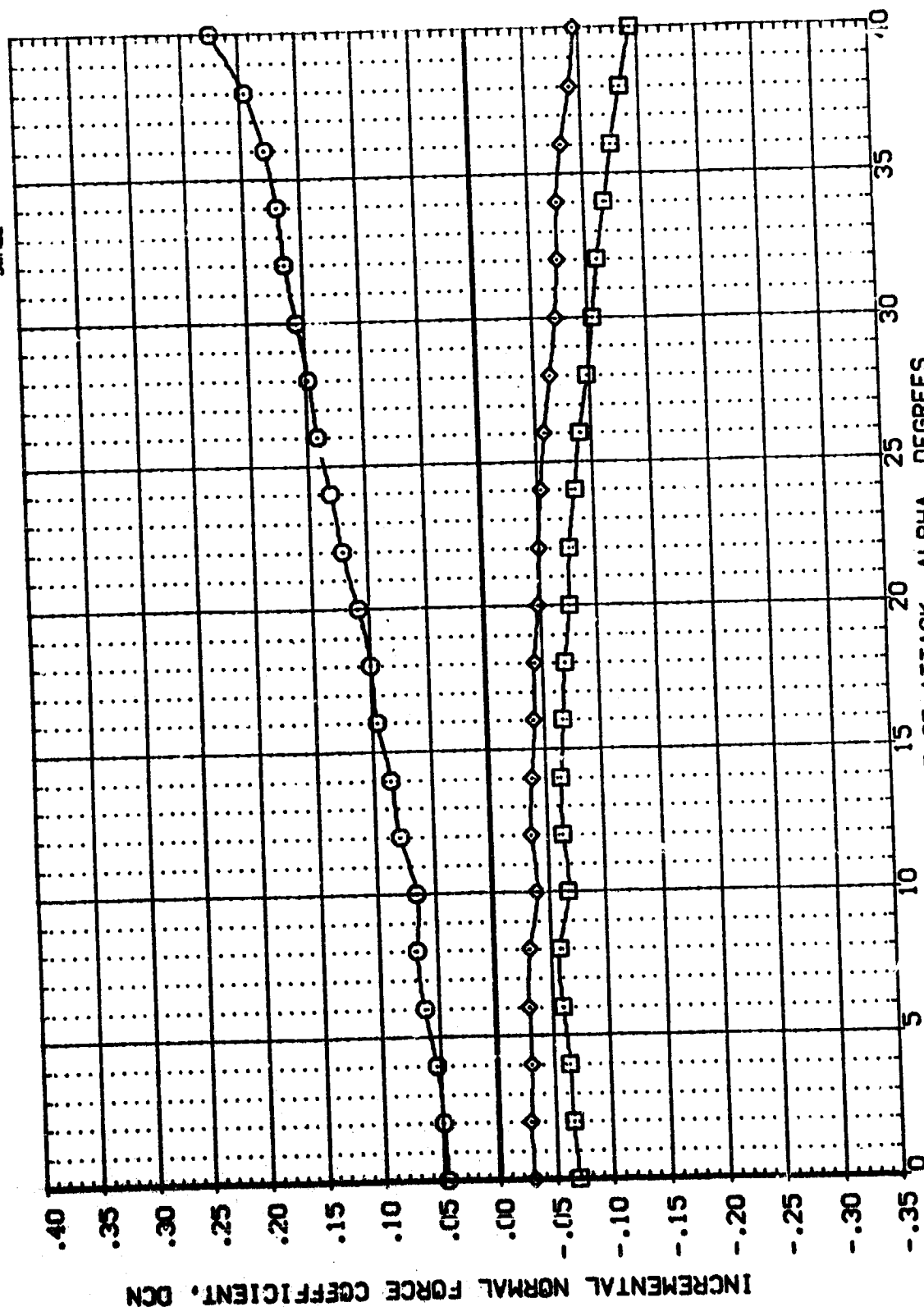
(CD)MACH = 1.96

PAGE 1538

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 535.7000 IN.
 XGRP 838.7000 IN.
 YGRP .0000 IN.
 ZGRP .0000 IN.
 SCALE .0040

BETA DE DBF
 .000 15.000 13.750
 .000 -40.000 -14.250
 .000 -20.000 .000

DATA SET SYMOL CONFIGURATION DESCRIPTION NOSE
 (087577) MSFC 57A(048) ORB 139 V/ALT NOSE
 (087581) MSFC 57A(048) ORB 139 V/ALT NOSE
 (287579) MSFC 57A(048) ORB 139 V/ALT NOSE



ANGLE OF ATTACK, ALPHA, DEGREES

FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE

(E)MACH = 2.99

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XMRP 838.7000 IN.
 YMRP .0000 IN.
 ZMRP .0000 IN.
 SCALE .0040

BETA DE DBF
 .000 13.750
 .000 -14.250
 .000 -20.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087577) H57C 574(0418) ORB 139 V/ALT NOSE
 (087581) H57C 574(0418) ORB 139 V/ALT NOSE
 (087579) H57C 574(0418) ORB 139 V/ALT NOSE

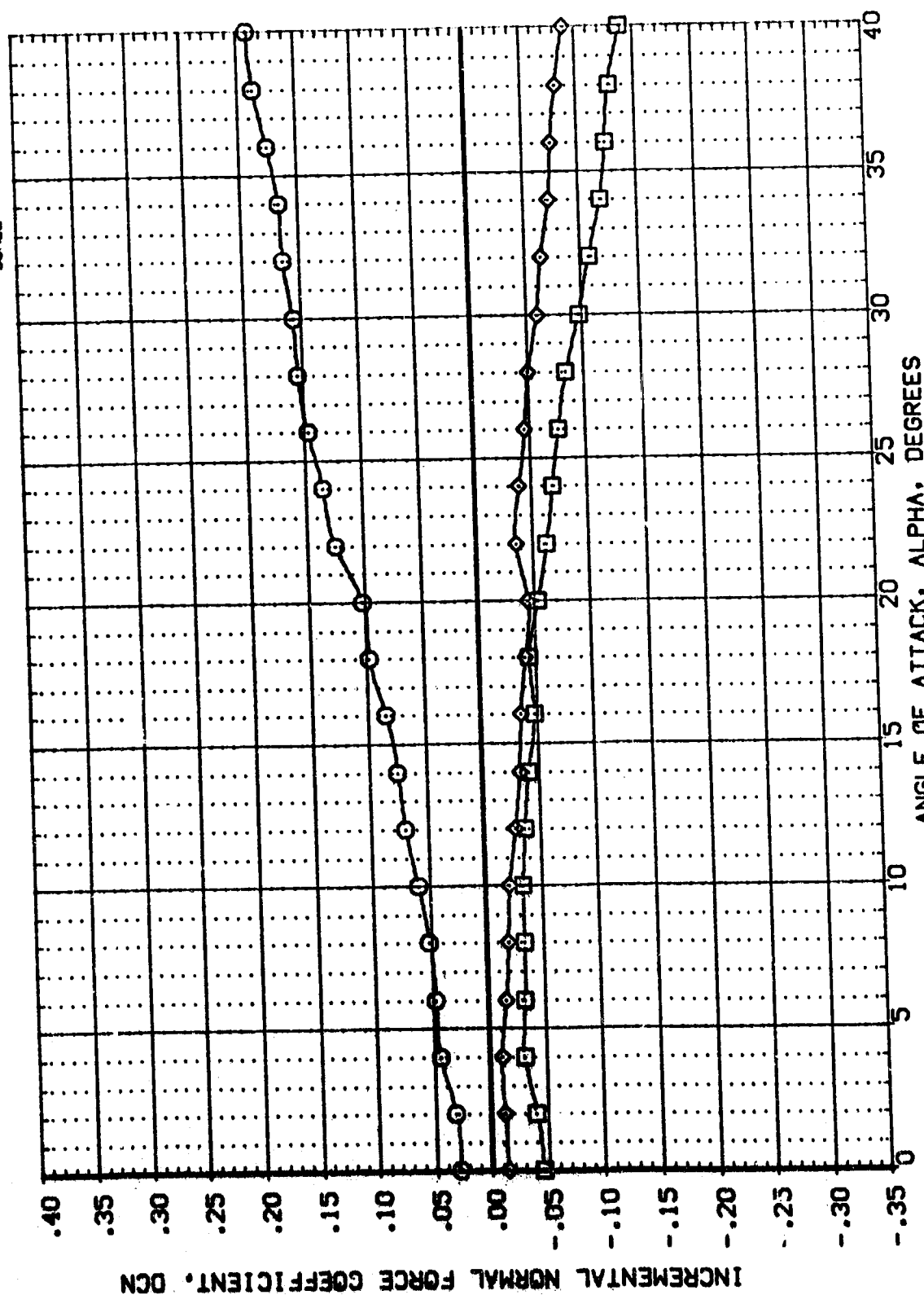


FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE
 (F)MACH = 4.96



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(087577) HSTC 574(0448) ORB 139 V/ALT NOSE
(087581) HSTC 574(0448) ORB 139 V/ALT NOSE
(287579) HSTC 574(0448) ORB 139 V/ALT NOSE

BETA DE DBF
.000 15.000 13.750
.000 -10.000 -14.250
.000 -20.000

REFERENCE INFORMATION
SREF 2690.0000 SQ.FT.
LREF 474.8000 IN.
BREF 936.7000 IN.
XREF 838.7000 IN.
YREF .0000 IN.
ZREF .0000 IN.
SCALE .0040

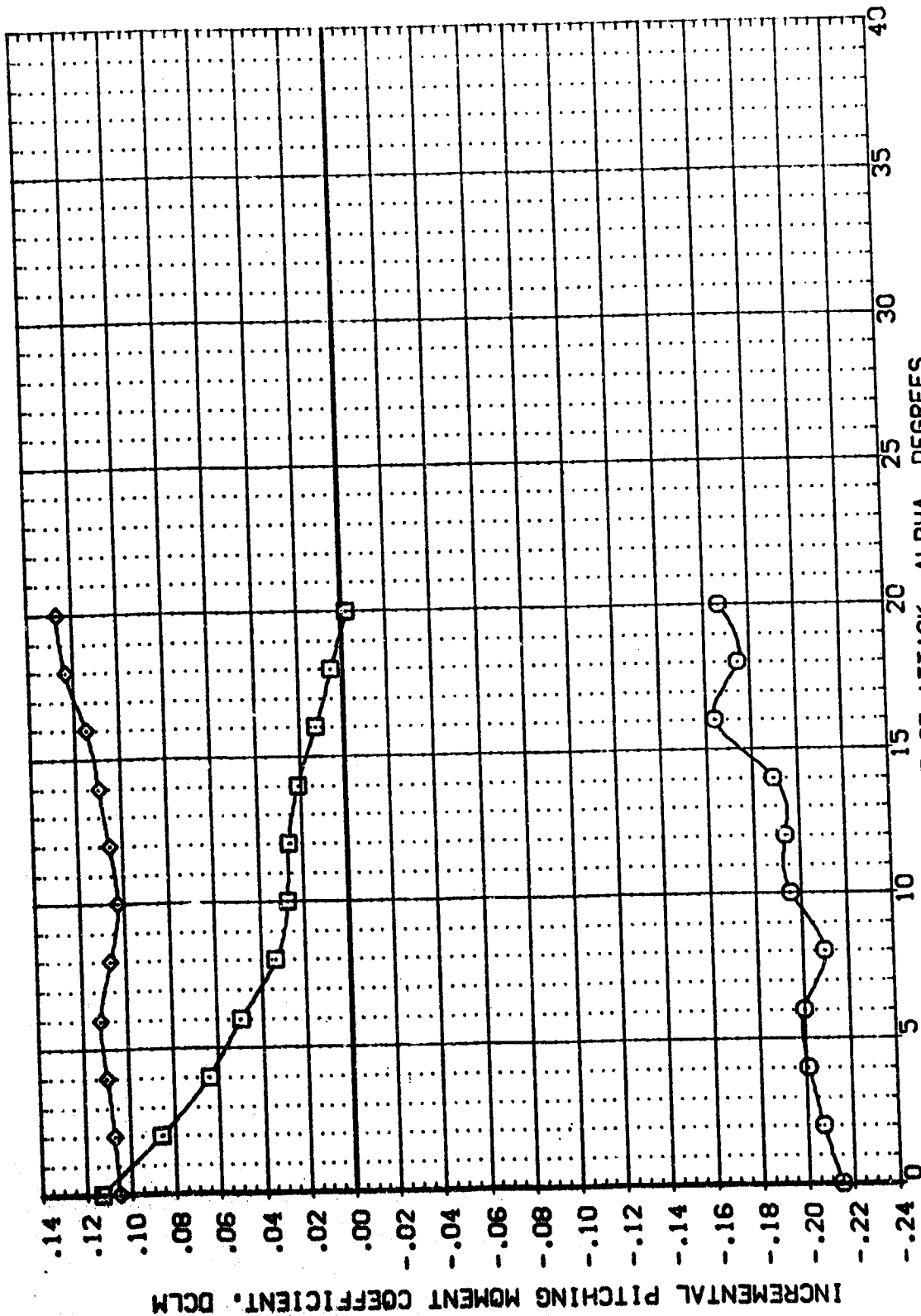


FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE
(A)MACH = .60

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XMRP 838.7000 IN.
 YMRP .0000 IN.
 ZMRP .0000 IN.
 SCALE .0040

BETA DE DBF
 .000 15.000 13.750
 .000 -40.000 -14.250
 .000 -20.000 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087577) HBFC 574(DA48) ORB 139 V/ALT NOSE
 (087581) HBFC 574(DA48) ORB 138 V/ALT NOSE
 (287579) HBFC 574(DA48) ORB 139 V/ALT NOSE

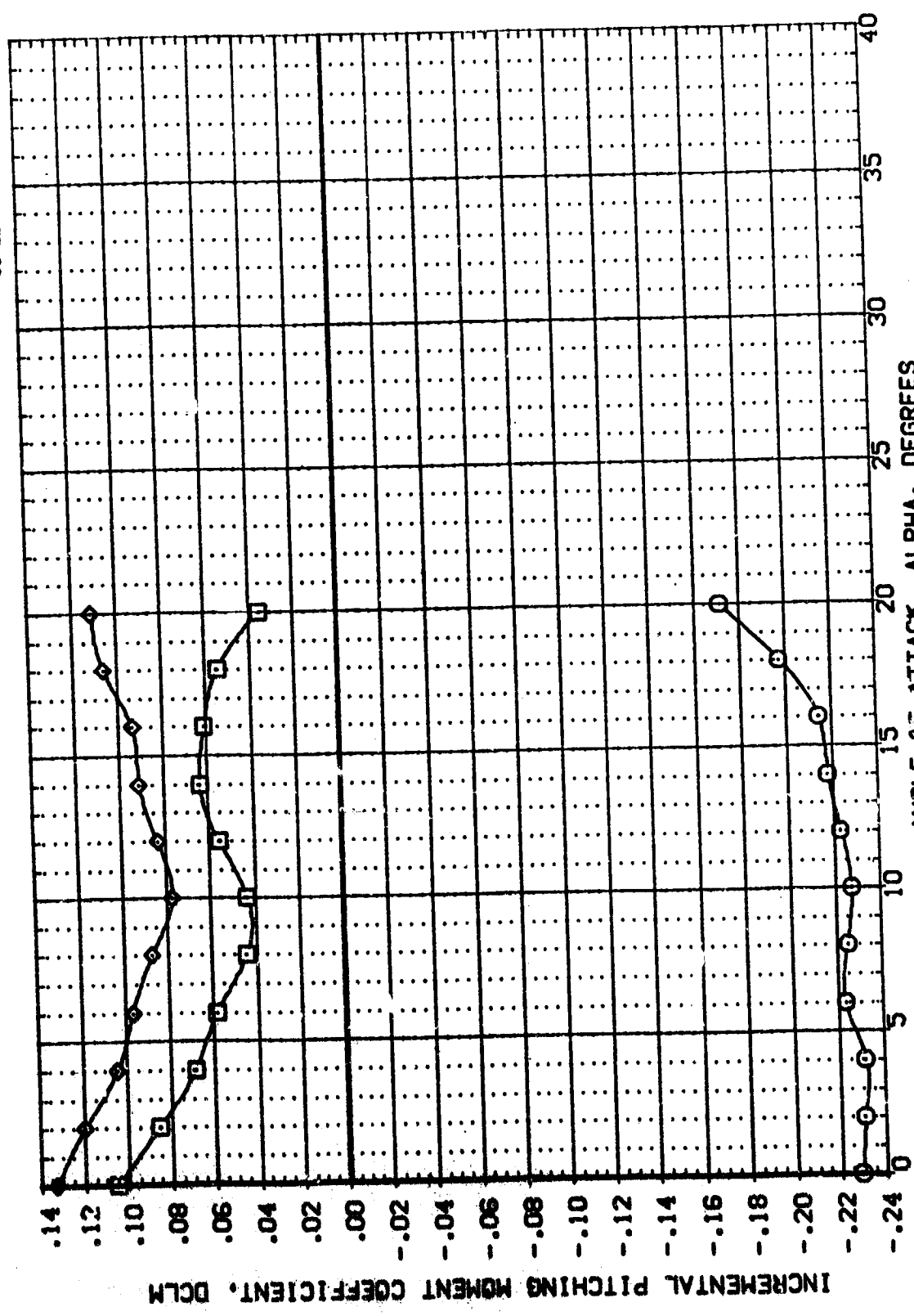


FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE
 (B)MACH = .90
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REFERENCE INFORMATION
 SREF 2650.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 WREF 838.7000 IN.
 YREF .0000 IN.
 ZREF .0000 IN.
 SCALE .0040

BETA DE DBF
 .000 15.000 13.750
 .000 -10.000 -14.250
 .000 -20.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (007877) HSPC 574(048) ORB 139 W/ALT NOSE
 (007881) HSPC 574(048) ORB 139 W/ALT NOSE
 (007879) HSPC 574(048) ORB 139 W/ALT NOSE

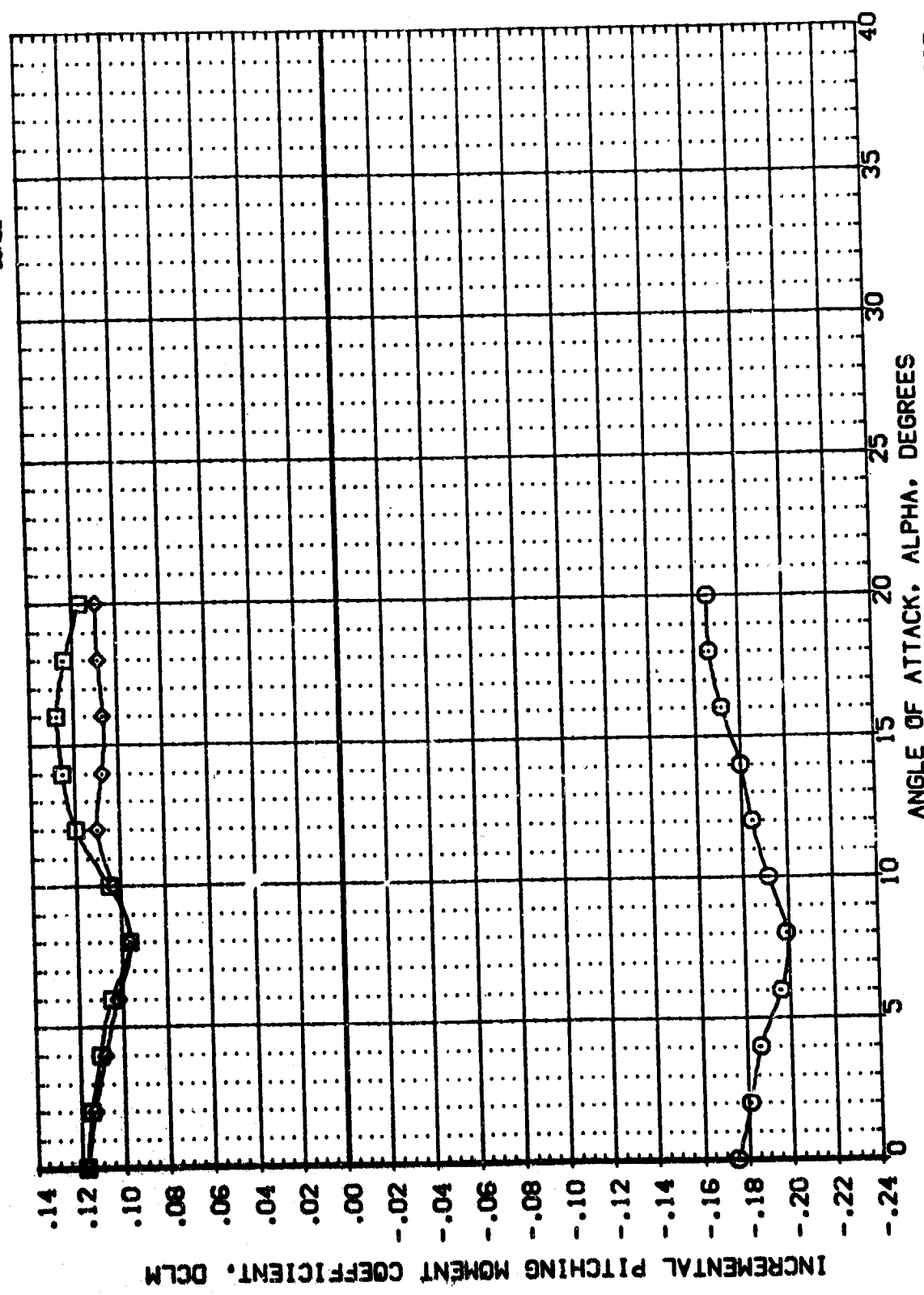



FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE
 (C)MACH = 1.20
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DATA SET SYMBOL:  CONFIGURATION DESCRIPTION: MSFC 574(0M48) ORB 139 V/ALT NOSE
 (08/577) MSFC 574(0M48) ORB 139 V/ALT NOSE
 (08/581) MSFC 574(0M48) ORB 139 V/ALT NOSE
 (38/579)

BETA: .000 DE: 15.000 DB: 13.750
 .000 -10.000 -14.250
 .000 -20.000

REFERENCE INFORMATION:
 SREF: 2690.0000 SQ.FT.
 LREF: 474.8000 IN.
 BREF: 936.7000 IN.
 XMRP: 638.7000 IN.
 YMRP: .0000 IN.
 ZMRP: .0000 IN.
 SCALE: .0040

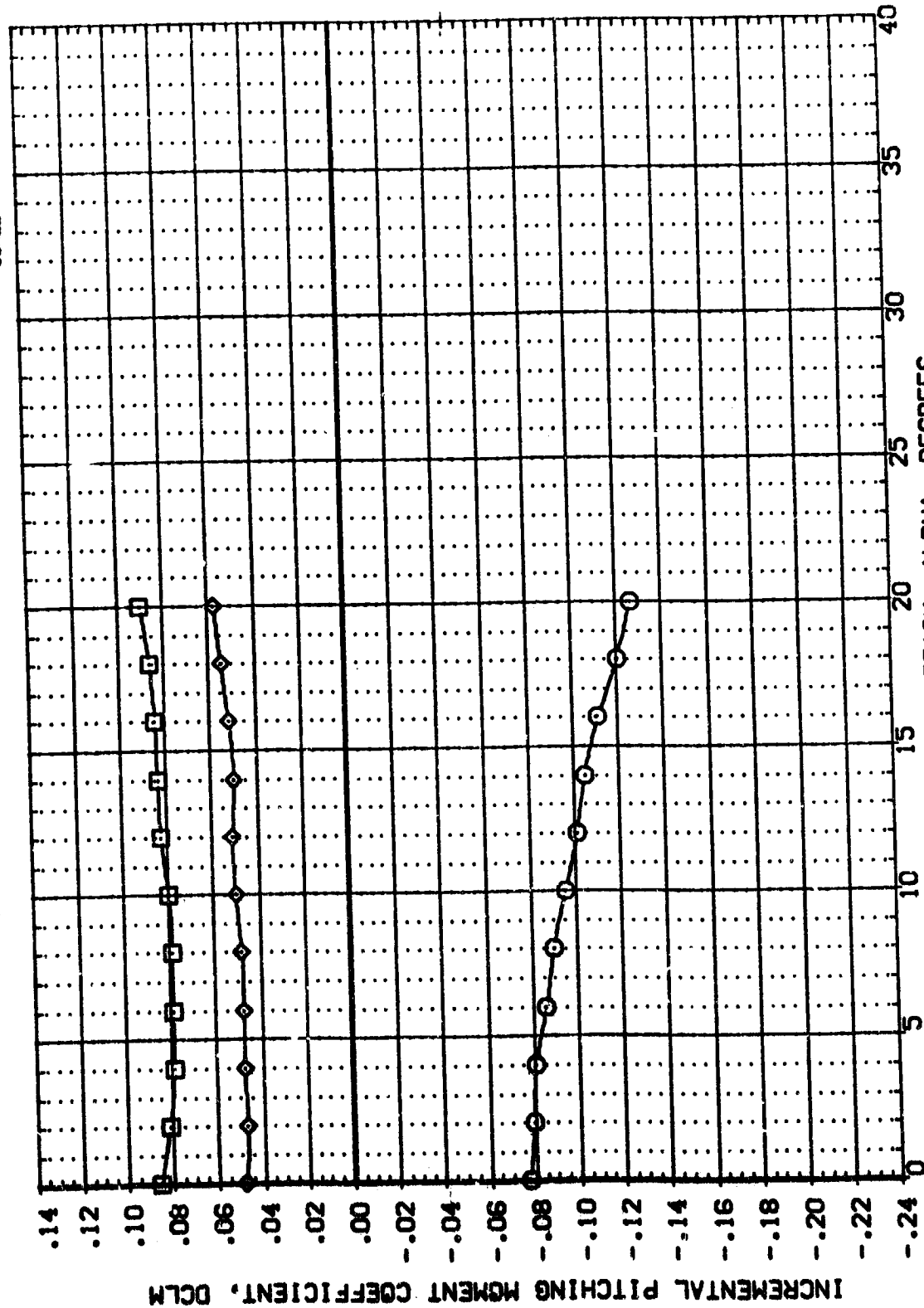


FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE
 (DJMACH = 1.96) PAGE 1544

DATA SET SYMB. CONFIGURATION DESCRIPTION

(087977) MSFC 574(0448) ORB 139 V/ALT NOSE

(087981) MSFC 574(0448) ORB 139 V/ALT NOSE

(287579) MSFC 574(0448) ORB 139 V/ALT NOSE

BETA DE DBF

.000 15.000 13.750

.000 -10.000 -14.250

.000 -20.000

REFERENCE INFORMATION

SREF 2690.0000 SQ.FT.

LRUF 474.8000 IN.

BRUF 936.7000 IN.

XMRP 836.7000 IN.

YMRP .0000 IN.

ZMRP .0000 IN.

SCALE .0040

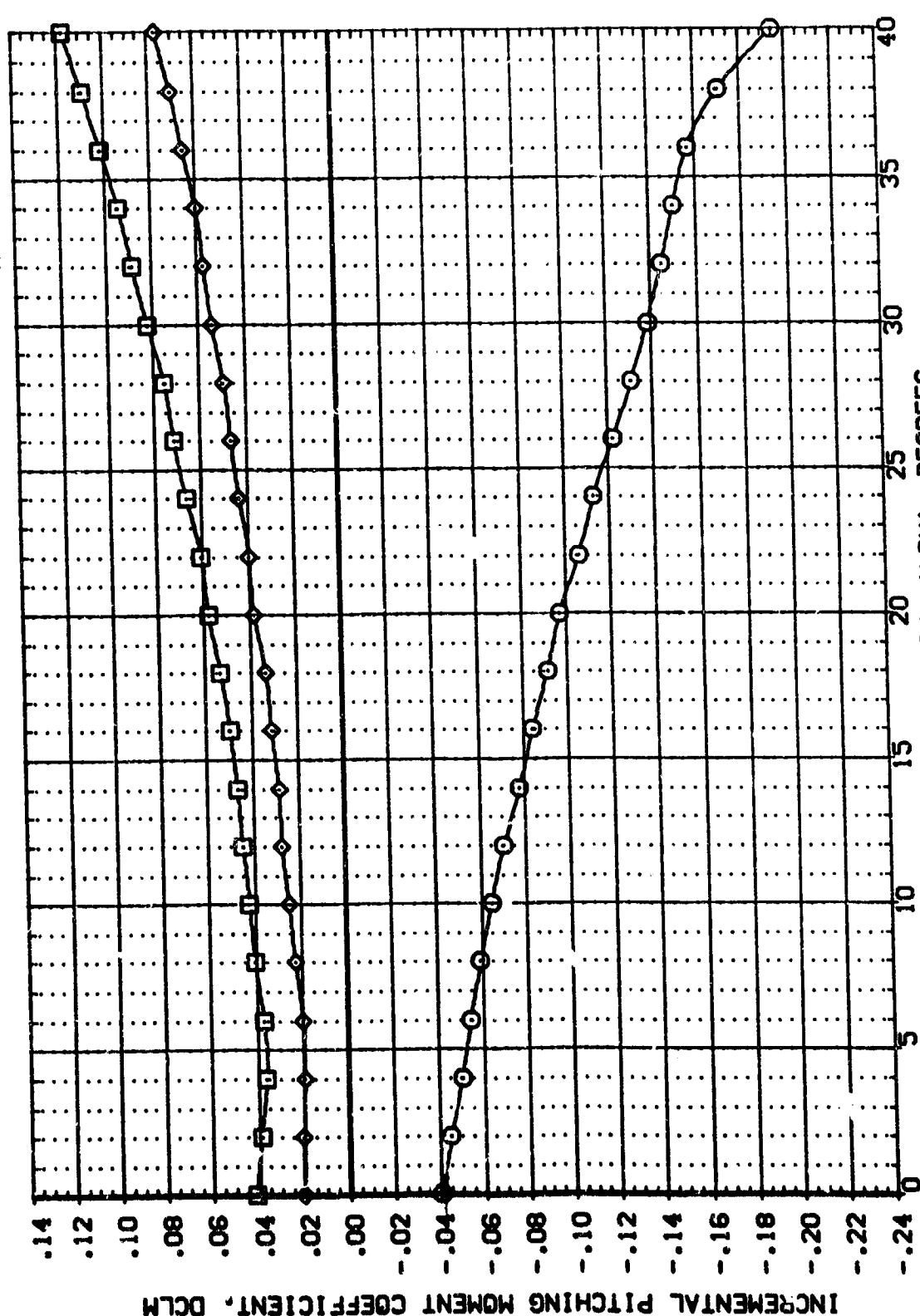


FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE

(E)MACH = 2.99

PAGE 1545

REFERENCE INFORMATION
 SREF 2690.0000 IN.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XMRP 838.7000 IN.
 YMRP .0000 IN.
 ZMRP .0000 IN.
 SCALE .0040

BETA DE DBF
 .000 15.000 13.750
 .000 -10.000 -14.250
 .000 -20.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087577) MSFC 574(OM48) DB 139 V/ALT NOSE
 (087581) MSFC 574(OM48) DB 139 V/ALT NOSE
 (207579) MSFC 574(OM48) DB 139 V/ALT NOSE

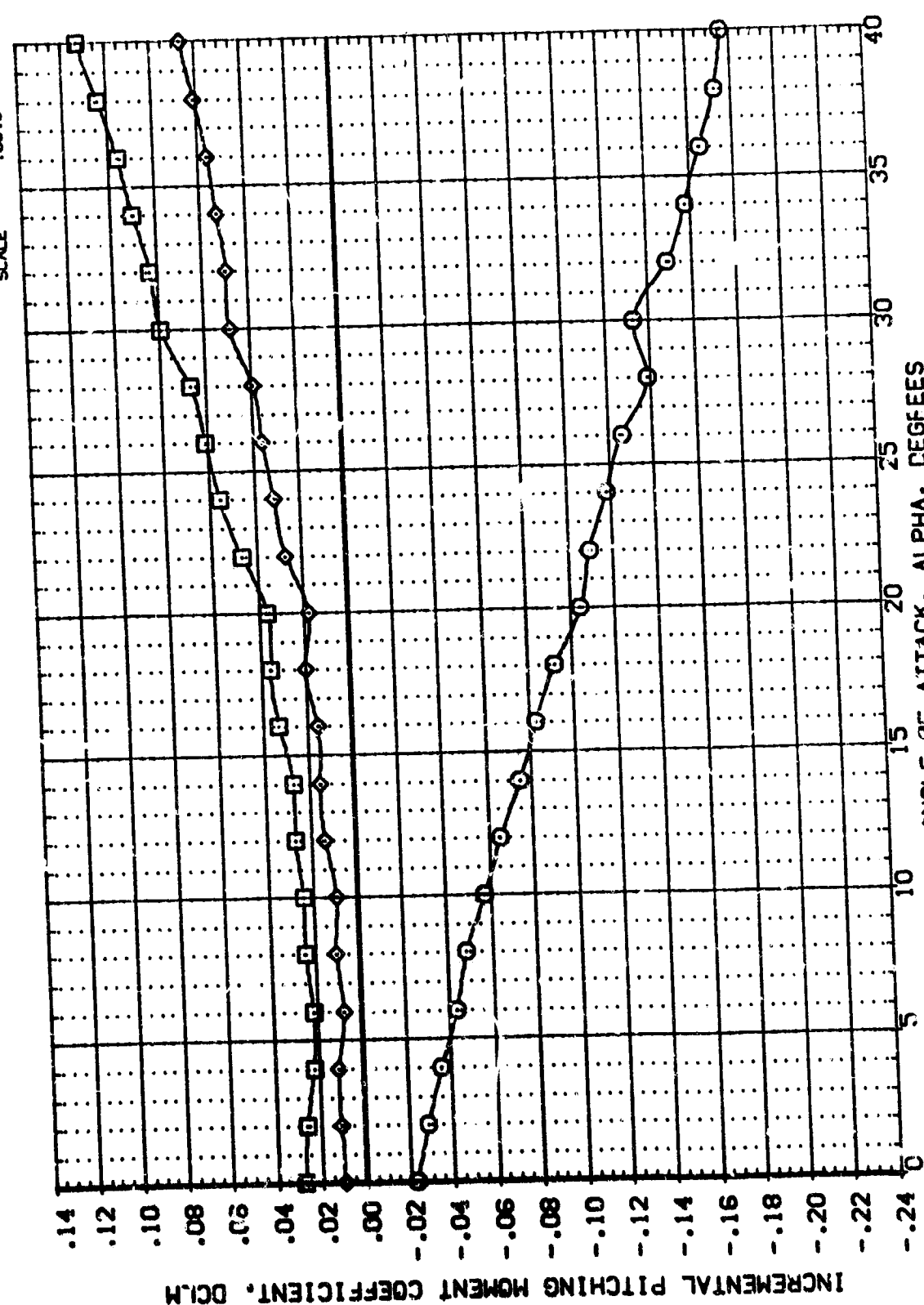


FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE
 (F)MACH = 4.96
 PAGE 1546



DATA SET SYMBOL: (087577) (087581) (+87579)
CONFIGURATION DESCRIPTION: HSC 574(0418) ORB 139 V/ALT NOSE
HSC 574(0418) ORB 139 V/ALT NOSE
DATA: NOT AVAILABLE

BETA: .000 DE: 15.000 DBF: 13.750
.000 -40.000 -14.250
.000 .000 .000

REFERENCE INFORMATION: SQ. FT.
SREF: 2690.0000 IN.
LREF: 474.8000 IN.
BREF: 936.7000 IN.
VREF: 838.7000 IN.
VREF: .0000 IN.
VREF: .0000 IN.
VREF: .0000 IN.
SCALE: .0010

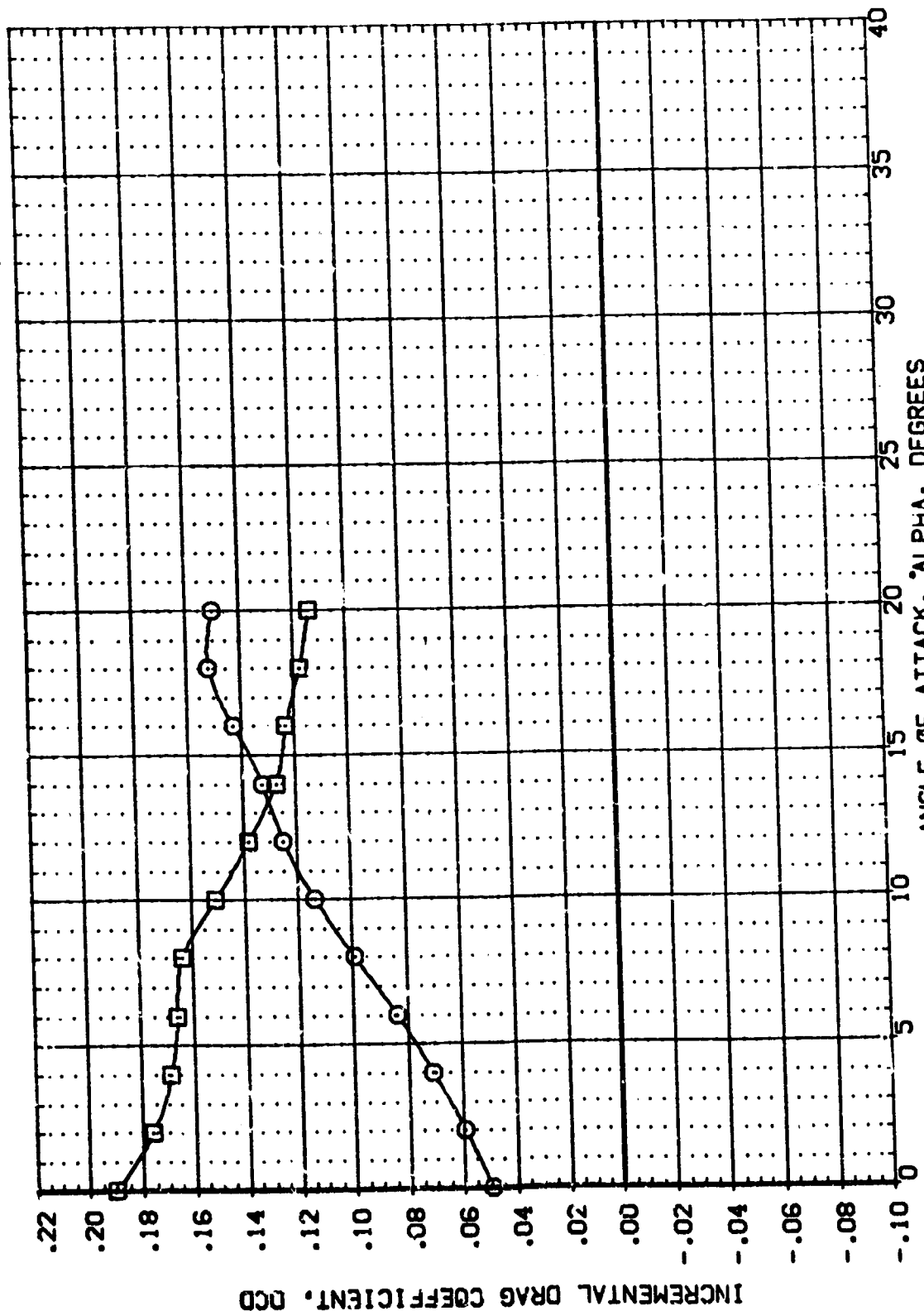


FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE
CAJ MACH = .60
PAGE 1547

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XPRP 838.7000 IN.
 YPRP .0000 IN.
 ZPRP .0000 IN.
 SCALE .0040

BETA DE DBF
 .000 15.000 13.750
 .000 -10.000 -14.250
 .000 -20.000 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087577) MSFC 574(0448) ORB 139 V/ALT NOSE
 (087581) MSFC 574(0448) ORB 139 V/ALT NOSE
 (+87579) DATA NOT AVAILABLE

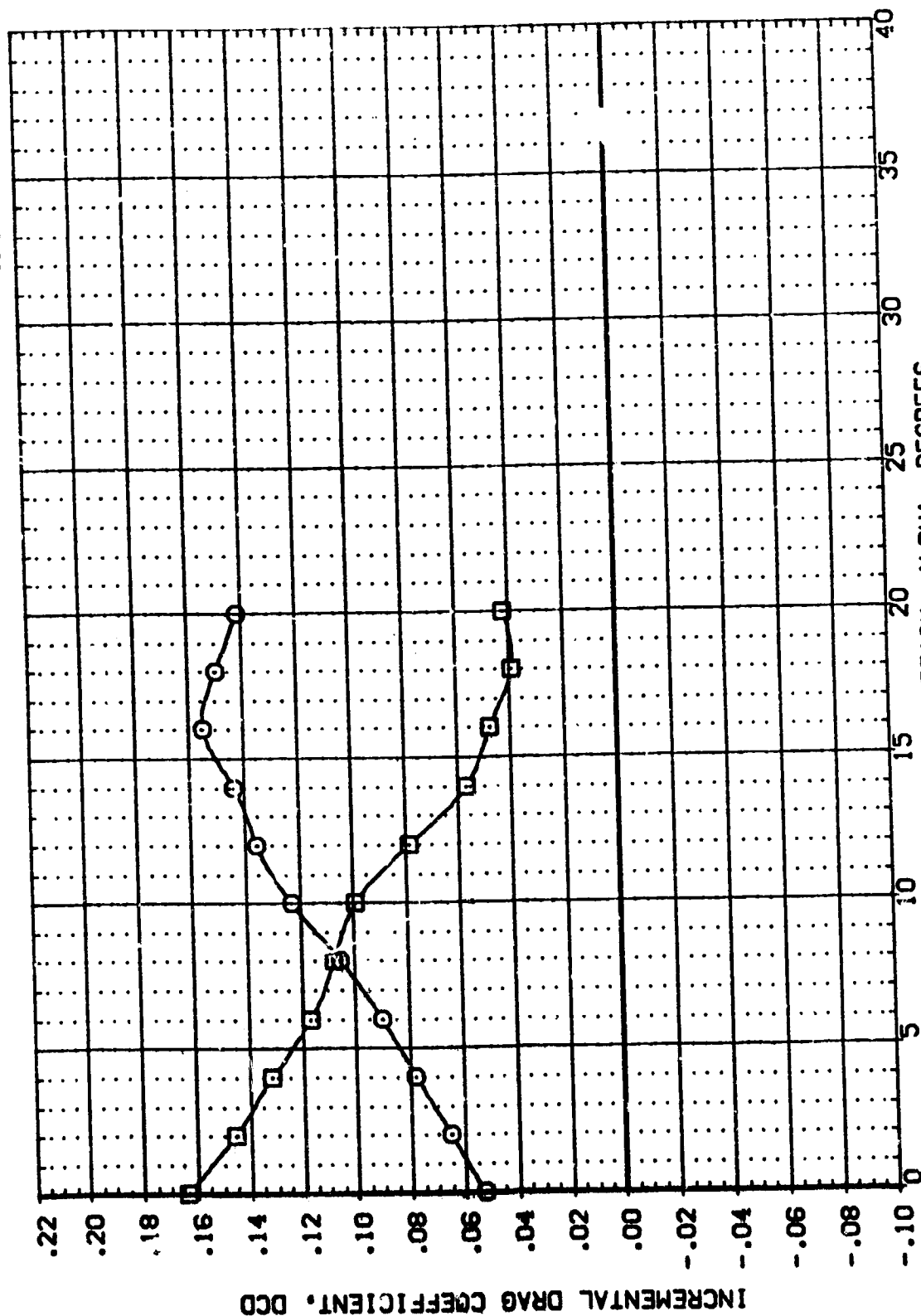
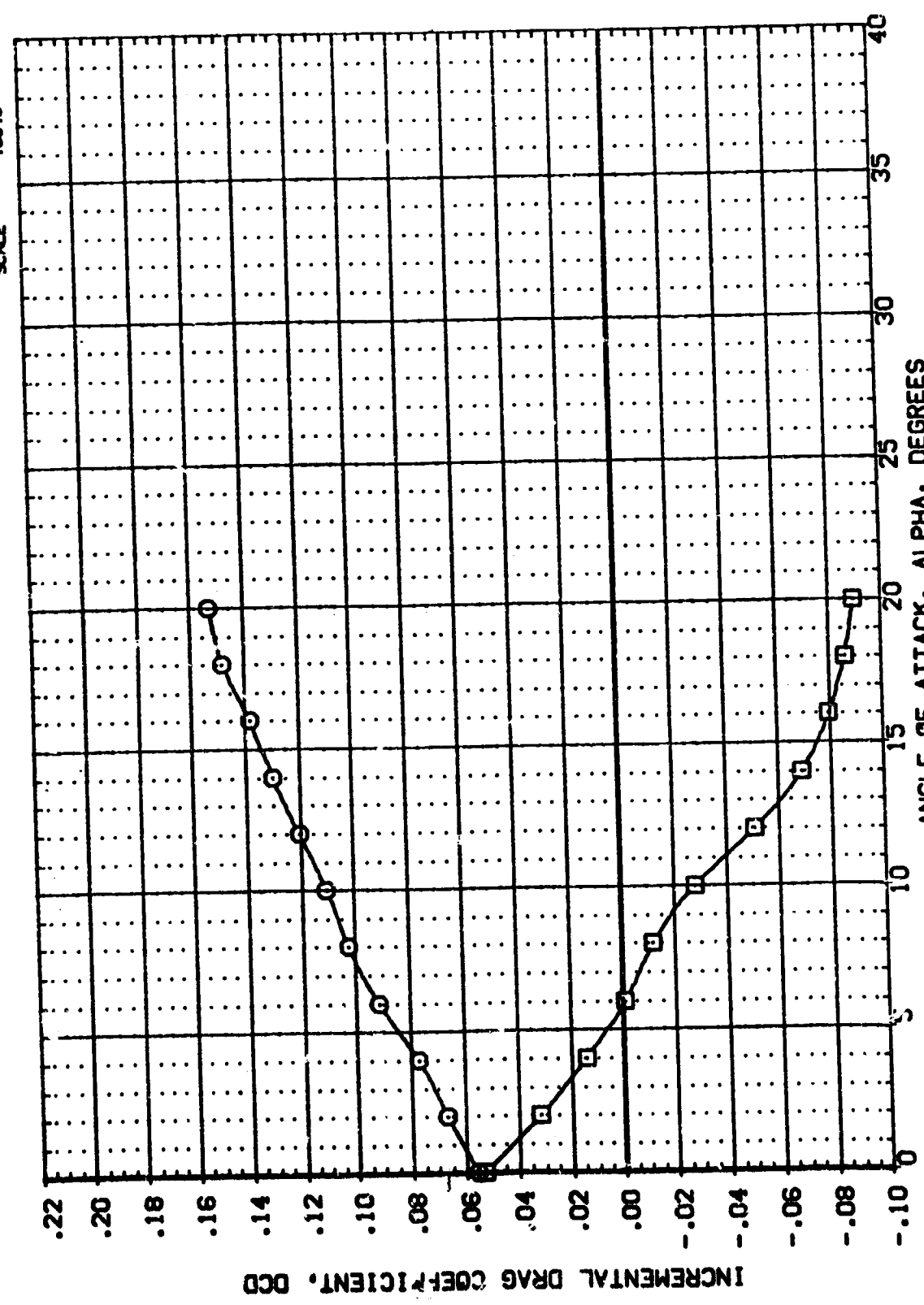


FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE
 (B)MACH = .90

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XREF 638.7000 IN.
 YREF .0000 IN.
 ZREF .0000 IN.
 SCALE .0010

BETA DE DBF
 .000 15.000 13.750
 .000 -40.000 -14.250
 .000 -20.000 .000

DATA SET SYMBL. CONFIGURATION DESCRIPTION
 (087577) MSC 574(048) ORB 139 W/ALT NOSE
 (087581) MSC 574(048) ORB 139 W/ALT NOSE
 (+87579) DATA NOT AVAILABLE



ANGLE OF ATTACK, ALPHA, DEGREES

FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE
 (C)MACH = 1.20
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DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087577) HSTC 574(0A48) ORB 139 W/ALT NOSE
 (087581) HSTC 574(0A48) ORB 139 W/ALT NOSE
 (087579) HSTC 574(0A48) ORB 139 W/ALT NOSE

BETA DE OSF
 .000 15.000 13.750
 .000 -10.000 -14.250
 .000 -20.000

REFERENCE INFORMATION
 SREF 2650.0000 SQ.FT.
 LREF 474.8000 IN.
 SREF 938.7070 IN.
 XREF 838.7070 IN.
 YREF .0000 IN.
 ZREF .0000 IN.
 SCALE .0040

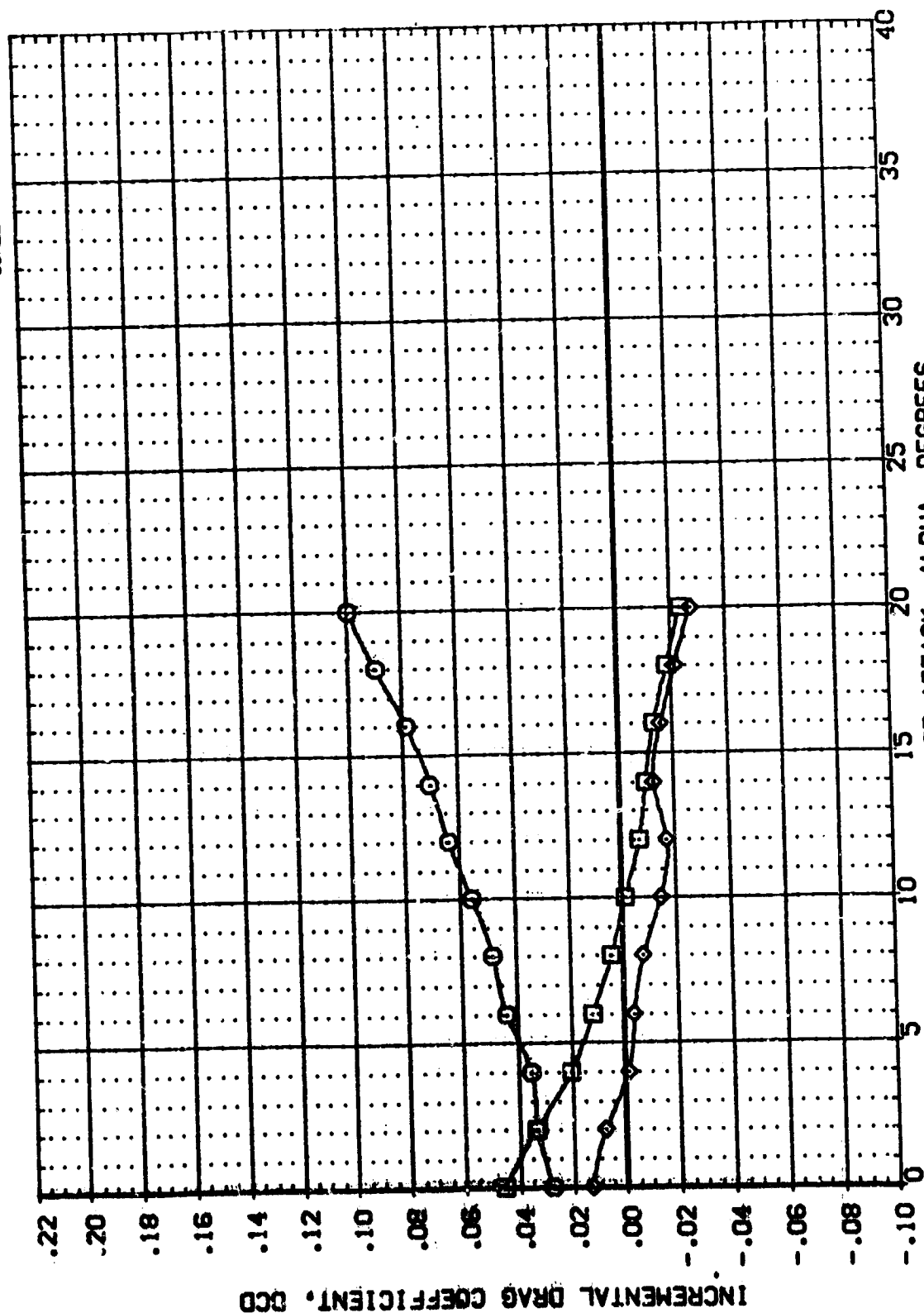


FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE
 (CD)MACH = 1.96
 PAGE 1550

REFERENCE INFORMATION
 SREF 2680.0000- SQ. FT.
 LREF 474.8000 IN.
 BREF 536.7000 IN.
 XREF 838.0000 IN.
 YREF .0000 IN.
 ZREF .0000 IN.
 SCALE .0010

BETA DE DBF
 .000 15.000 13.750
 .000 -40.000 -14.250
 .000 -20.000 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087577) H5FC 574(0A48) ORB 139 V/ALT NOSE
 (087581) H5FC 574(0A48) ORB 139 V/ALT NOSE
 (087579) H5FC 574(0A48) ORB 139 V/ALT NOSE

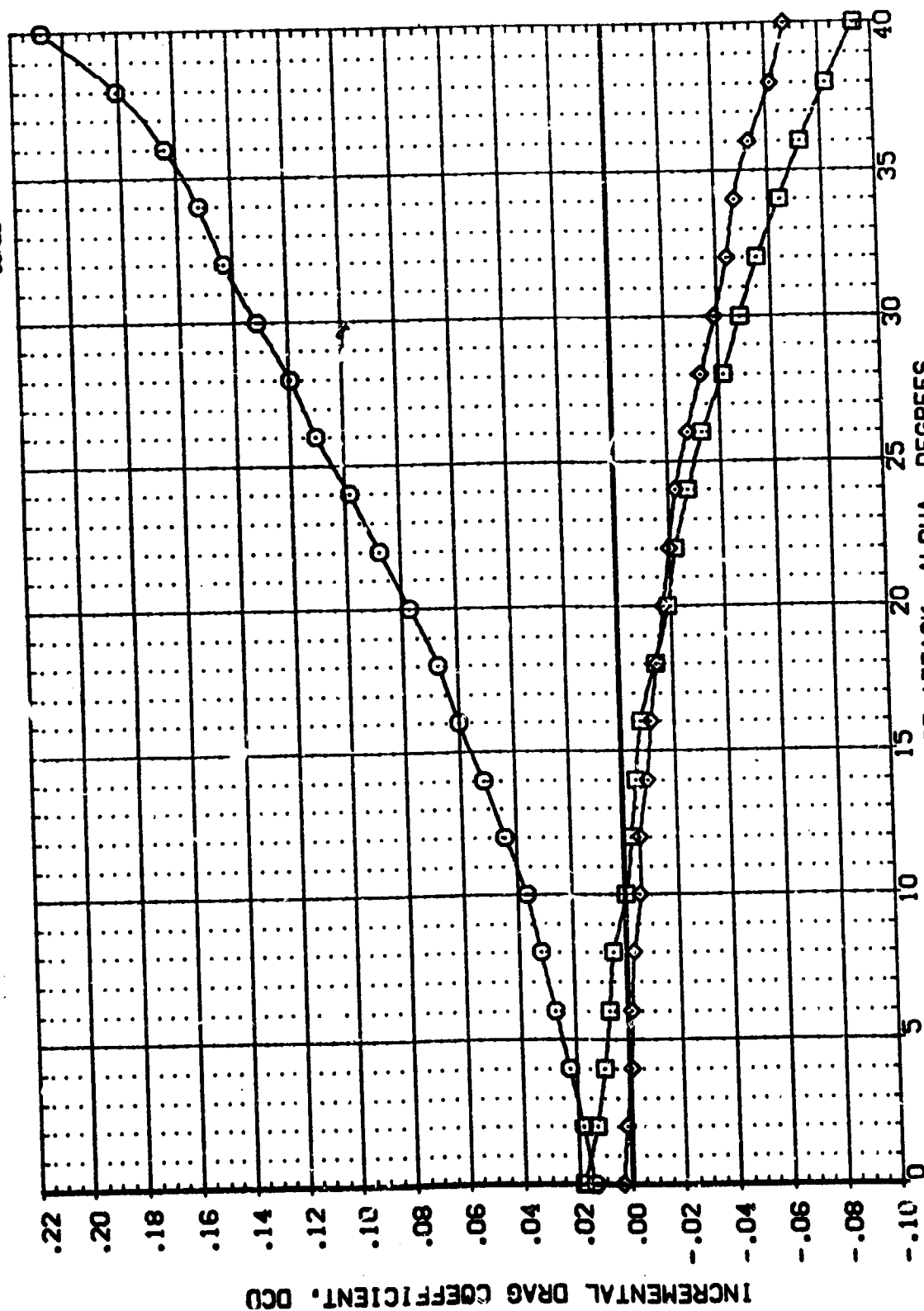


FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE
 (C)MACH = 2.99
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DATA SET SYMBOL: 139 V/ALT NOSE
 (087577) 139 V/ALT NOSE
 (087581) 139 V/ALT NOSE
 (087579) 139 V/ALT NOSE

BETA DE DBF
 .000 15.000 13.750
 .000 -10.000 -14.250
 .000 -20.000 .000

REFERENCE INFORMATION
 REF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 966.7000 IN.
 XREF 838.0000 IN.
 YMRP .0000 IN.
 ZMRP .0000 IN.
 SCALE .0040

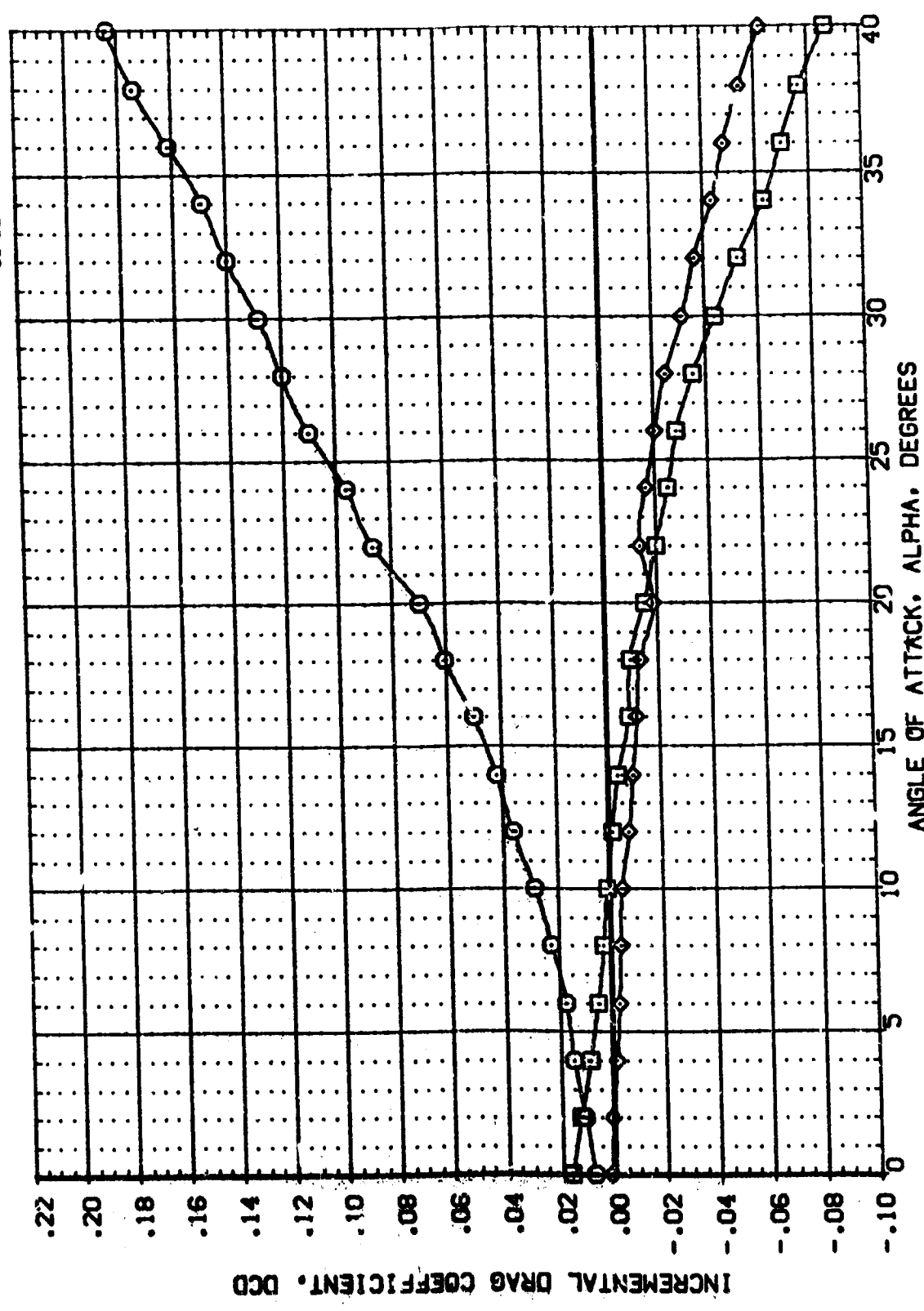


FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE
 (F)MACH = 4.96

REFERENCE INFORMATION
 SREF 2890.0000 90.FT.
 LREF 474.8000 IN.
 SREF 936.7000 IN.
 XPRP 838.7000 IN.
 YPRP .0000 IN.
 ZPRP .0000 IN.
 SCALE .0040

BETA DE DBF
 .000 15.000 13.750
 .000 -10.000 -14.250
 .000 -20.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087577) NSFC 574(0A48) ORB 139 V/ALT NOSE
 (087581) NSFC 574(0A48) ORB 139 V/ALT NOSE
 (+67579) DATA NOT AVAILABLE

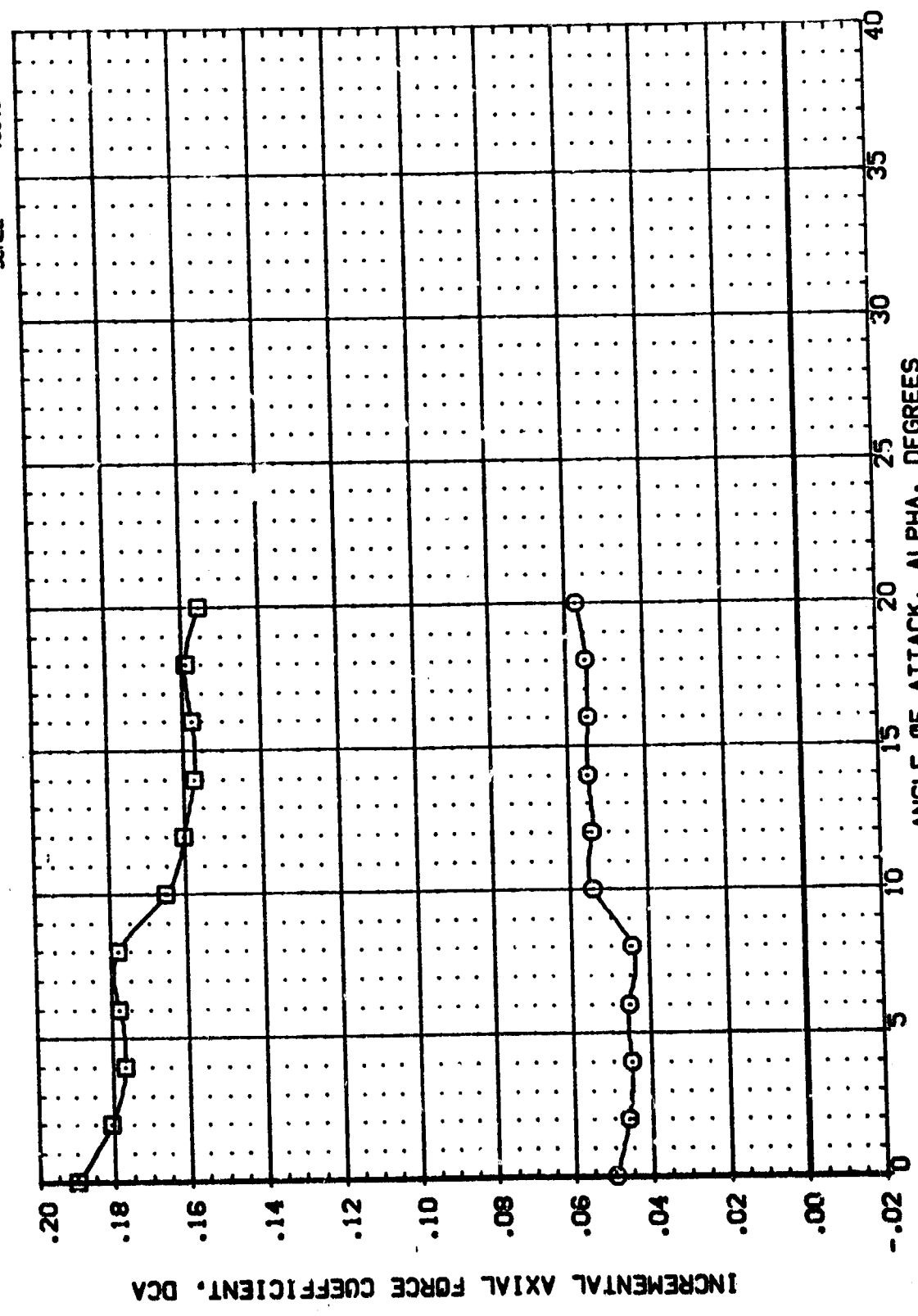


FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE
 (A)MACH = .60
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DATA SET SYMBOL: (087577)
 (087581)
 (+87579)

CONFIGURATION DESCRIPTION:
 HPFC 574(OM8) ORB 139 W/ALT NOSE
 HPFC 574(OM8) ORB 139 W/ALT NOSE
 DATA NOT AVAILABLE

BETA: .000
 DE: 15.000
 DBF: 13.750
 -14.250
 .000
 -10.000
 -20.000

REFERENCE INFORMATION:
 SREF: 2890.0000 50.FT.
 LREF: 474.8000 IN.
 BREF: 936.7000 IN.
 XREF: 838.7000 IN.
 YREF: .0000 IN.
 ZREF: .0000 IN.
 SCALE: .0040

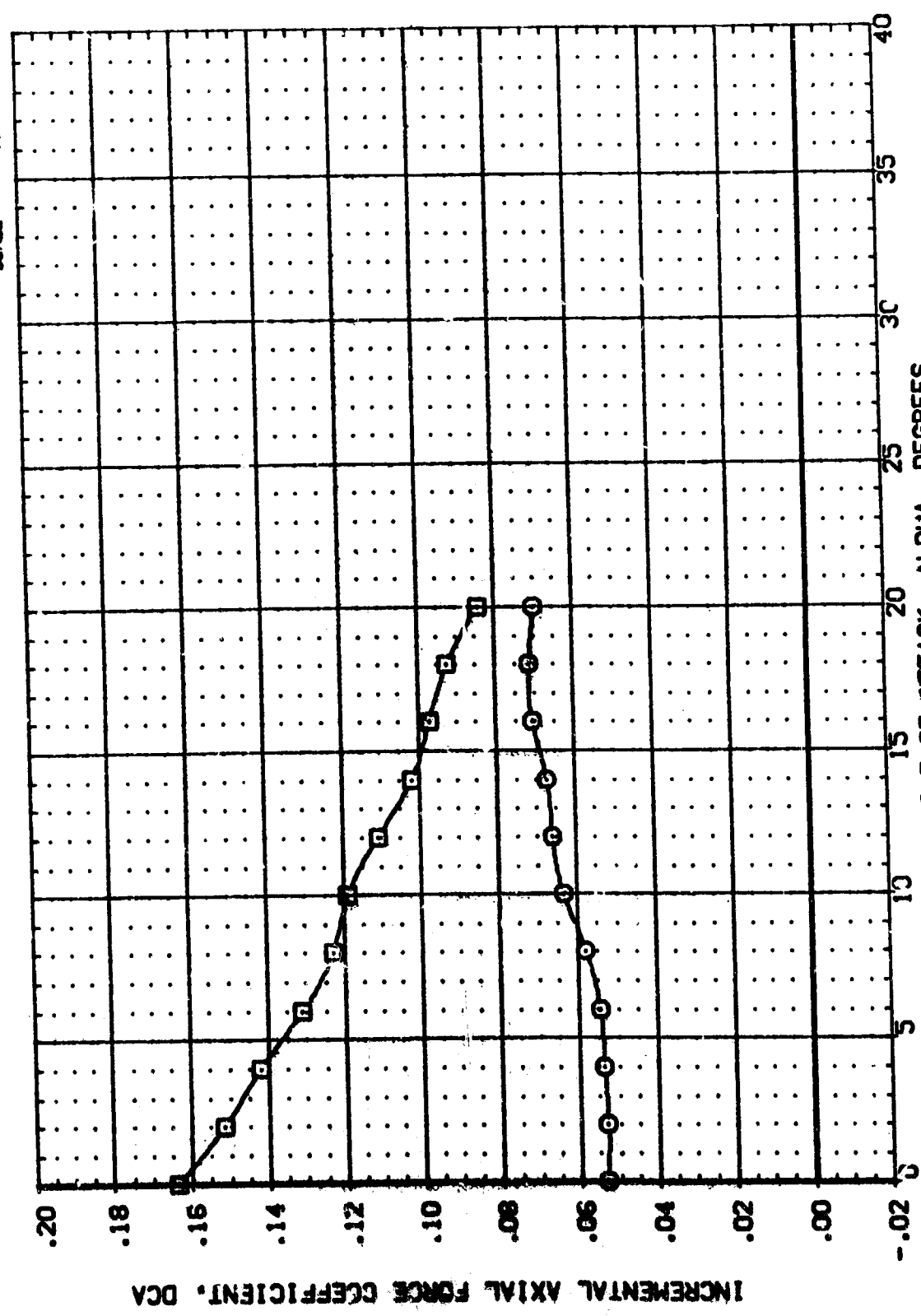
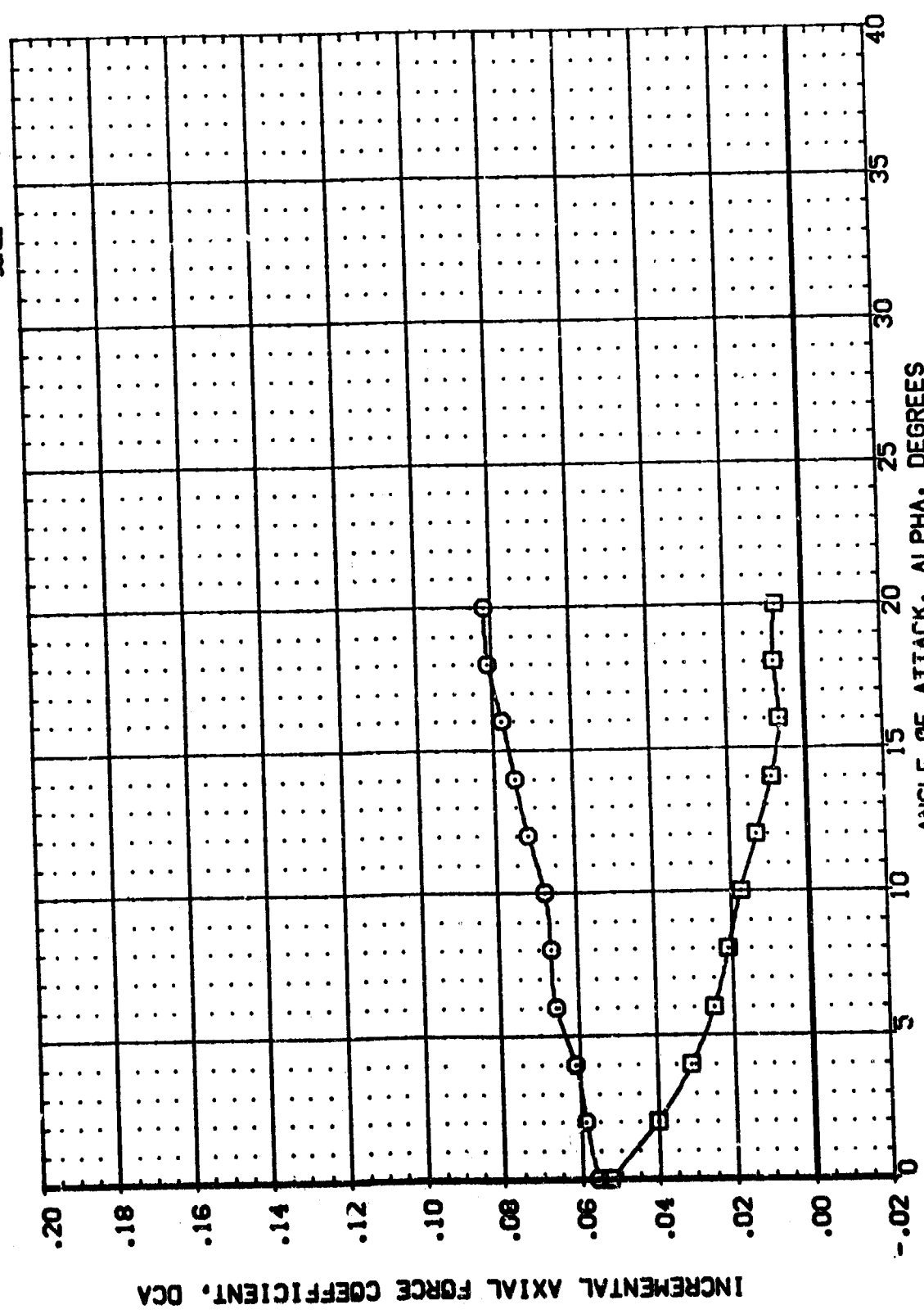


FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE
 (B)MACH = .50
 PAGE 1554

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XMRP 838.7000 IN.
 YMRP .0000 IN.
 ZMRP .0000 IN.
 SCALE .0040

BETA DE DBF
 .000 15.000 13.750
 .000 -40.000 -14.250
 .000 -20.000 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087577) HBFC 574(DA48) ORB 139 W/ALT NOSE
 (087581) HBFC 574(DA48) ORB 139 W/ALT NOSE
 (087579) DATA NOT AVAILABLE



ANGLE OF ATTACK, ALPHA, DEGREES

FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE
 (C)MACH = 1.20
 PAGE 1555

DATA SET SYMBOL: (08/377) (08/750) (08/729)

CONFIGURATION DESCRIPTION: ORB 139 V/ALT NOSE ORB 139 V/ALT NOSE ORB 139 V/ALT NOSE

BETA DE DBF: .000 15.000 13.750 .000 -10.000 -14.250 .000 -20.000

REFERENCE INFORMATION: SREF 2690.0000 SQ.FT. LREF 474.6000 IN. BREF 936.7000 IN. YMRP 838.7000 IN. ZMRP .0000 IN. SCALE .0040

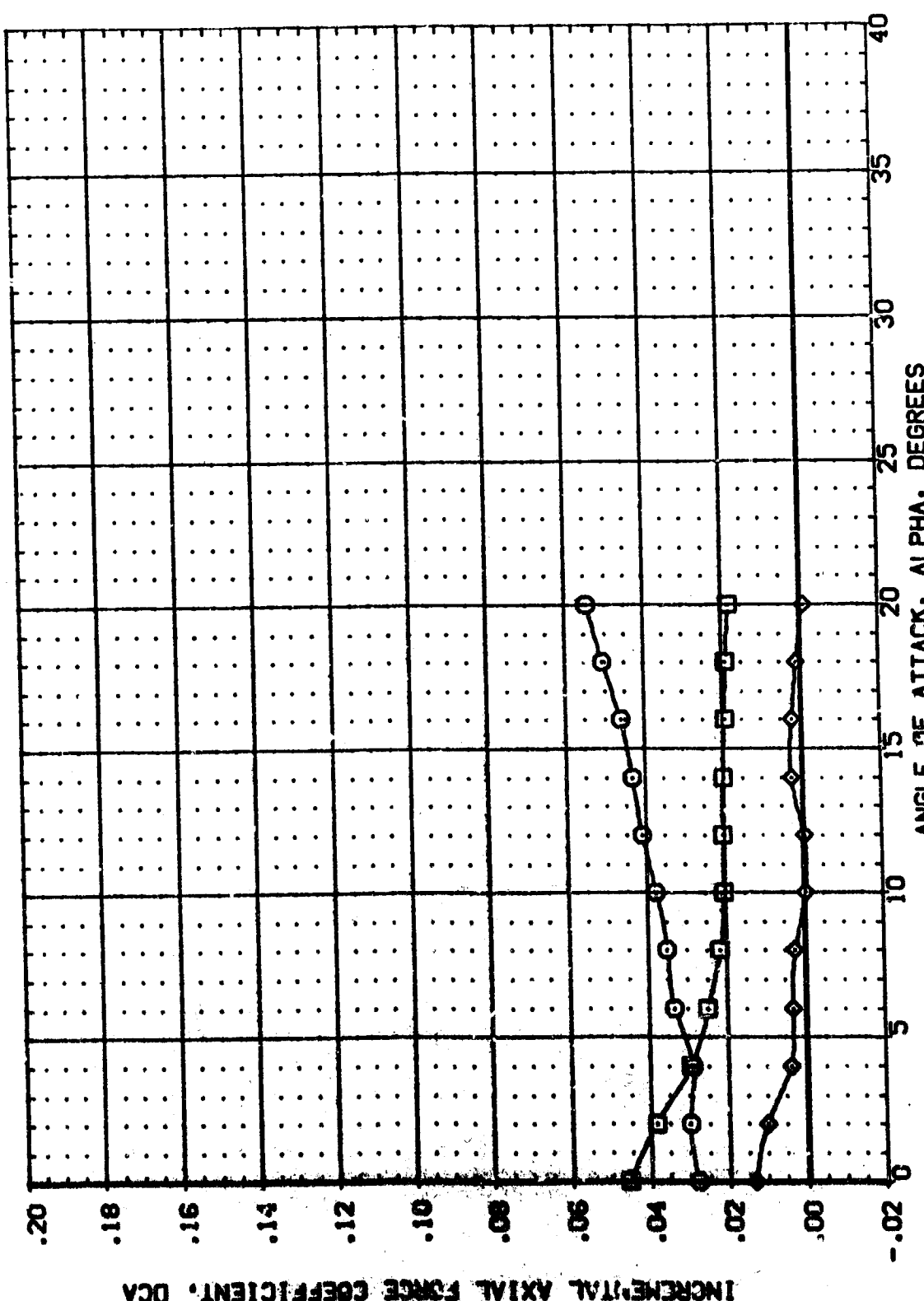


FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE
(D)MACH = 1.96



DATA SET-51802
(197577)
(067591)
(467575)

CONFIGURATION DESCRIPTION
MFC 574(OM48) ORB 139 V/ALT NOSE
MFC 574(OM48) ORB 139 V/ALT NOSE
MFC 574(OM48) ORB 139 V/ALT NOSE

BETA DE DBF
.000 19.000 13.750
.000 -40.000 -14.250
.000 -20.000

REFERENCE INFORMATION
SREF 2690.0000 50.FT.
LREF 474.8000 IN.
BREF 936.7000 IN.
XPRP 838.7000 IN.
YPRP .0000 IN.
ZPRP .0000 IN.
SCALE .0040

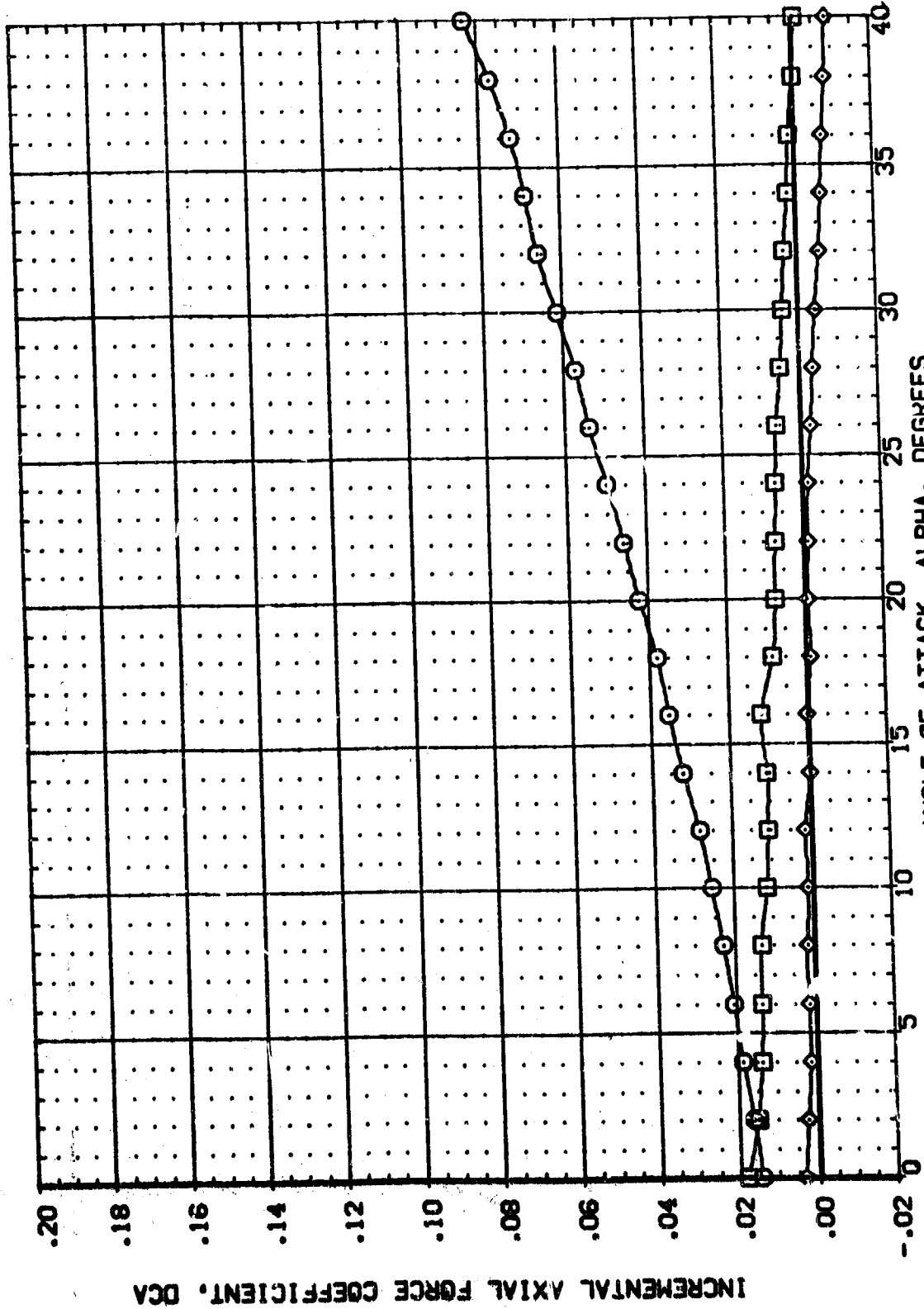


FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE
(E)MACH = 2.99
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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	DSF	REFERENCE INFORMATION
(087577)	H57C 574(048) ORB 139 V/ALT NOSE	.000	15.000	13.750	SREF 2690.0000 SO.FT.
(087581)	H57C 574(048) ORB 139 V/ALT NOSE	.000	-10.000	-14.250	LSREF 474.8000 IN.
(+87579)	H57C 574(048) ORB 139 V/ALT NOSE	.000	-20.000	.000	BREF 956.7000 IN.
					XREF 836.7000 IN.
					YREF .0000 IN.
					ZREF .0000 IN.
					SCALE .0040

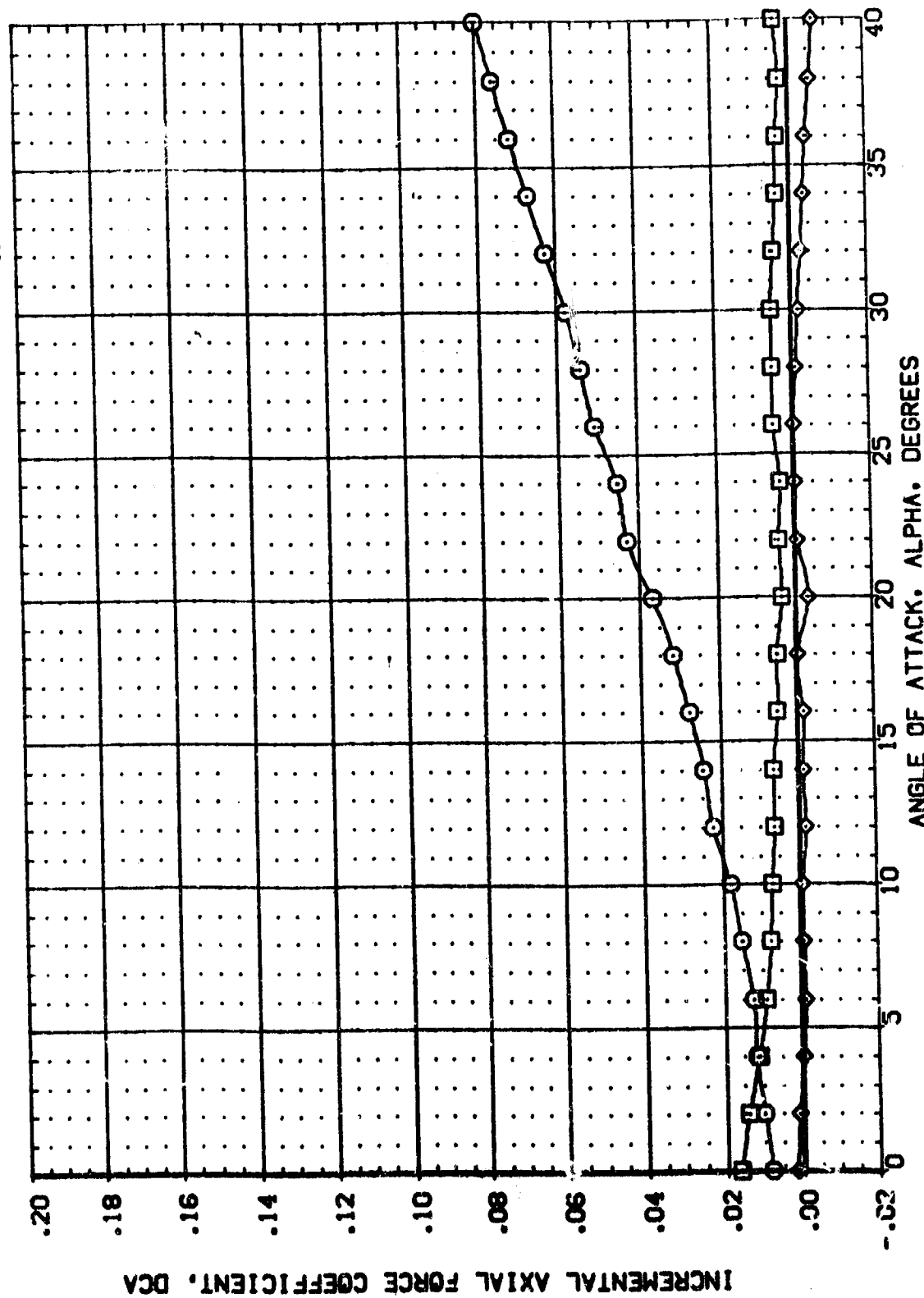


FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE
(F)MACH = 4.96

DATA SET SYMBOL: (067577)
 (067581)
 (067579)

CONFIGURATION DESCRIPTION:
 MSFC 574(0448) ORB 139 V/ALT NOSE
 MSFC 574(0448) ORB 139 V/ALT NOSE
 DATA NOT AVAILABLE

BETA: .000
 DE: 15.000
 DBF: 13.750
 DBF: -14.250
 DBF: .000
 DBF: -20.000

REFERENCE INFORMATION:
 SREF: 2690.0000 SQ.FT.
 LREF: 474.8000 IN.
 BREF: 938.7000 IN.
 XREF: 838.7000 IN.
 YREF: .0000 IN.
 ZREF: .0000 IN.
 SCALE: .0010

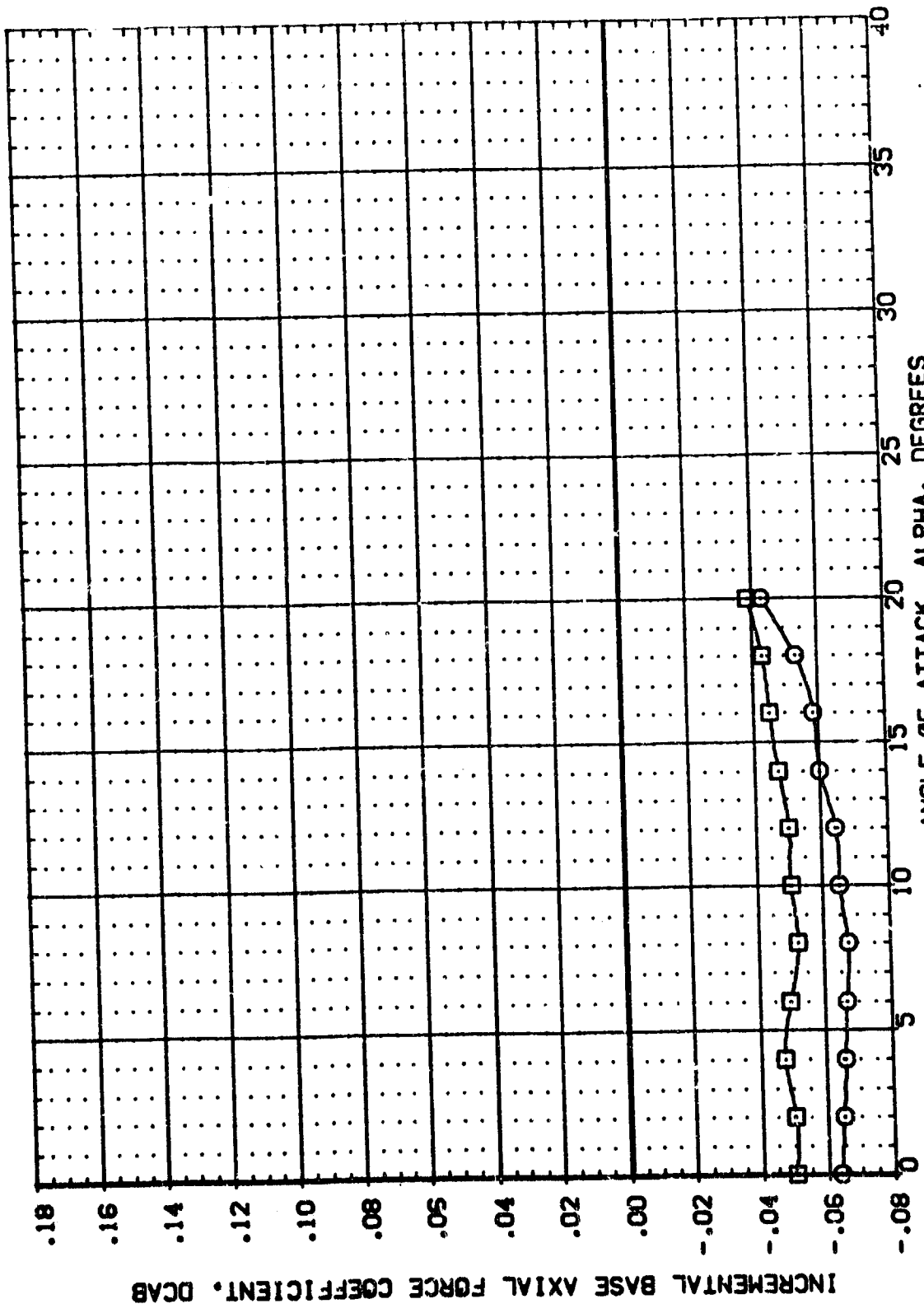


FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE

(A)MACH = .60

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DATA SET SYMBOL: (387577) (387581) (487579)
 CONFIGURATION DESCRIPTION: MSFC 574(0448) SUB 139 W/ALT NOSE
 MSFC 574(0448) SUB 139 W/ALT NOSE
 DATA NOT AVAILABLE

BETA: .000
 DE: 15.000
 DBF: 13.750
 -14.250
 .000
 -20.000

REFERENCE INFORMATION:
 SRCT: 2690.0000 IN.
 LREF: 474.8000 IN.
 BREF: 936.7000 IN.
 XPRP: 938.0000 IN.
 YPRP: .0000 IN.
 ZPRP: .0000 IN.
 SCALE: .0040

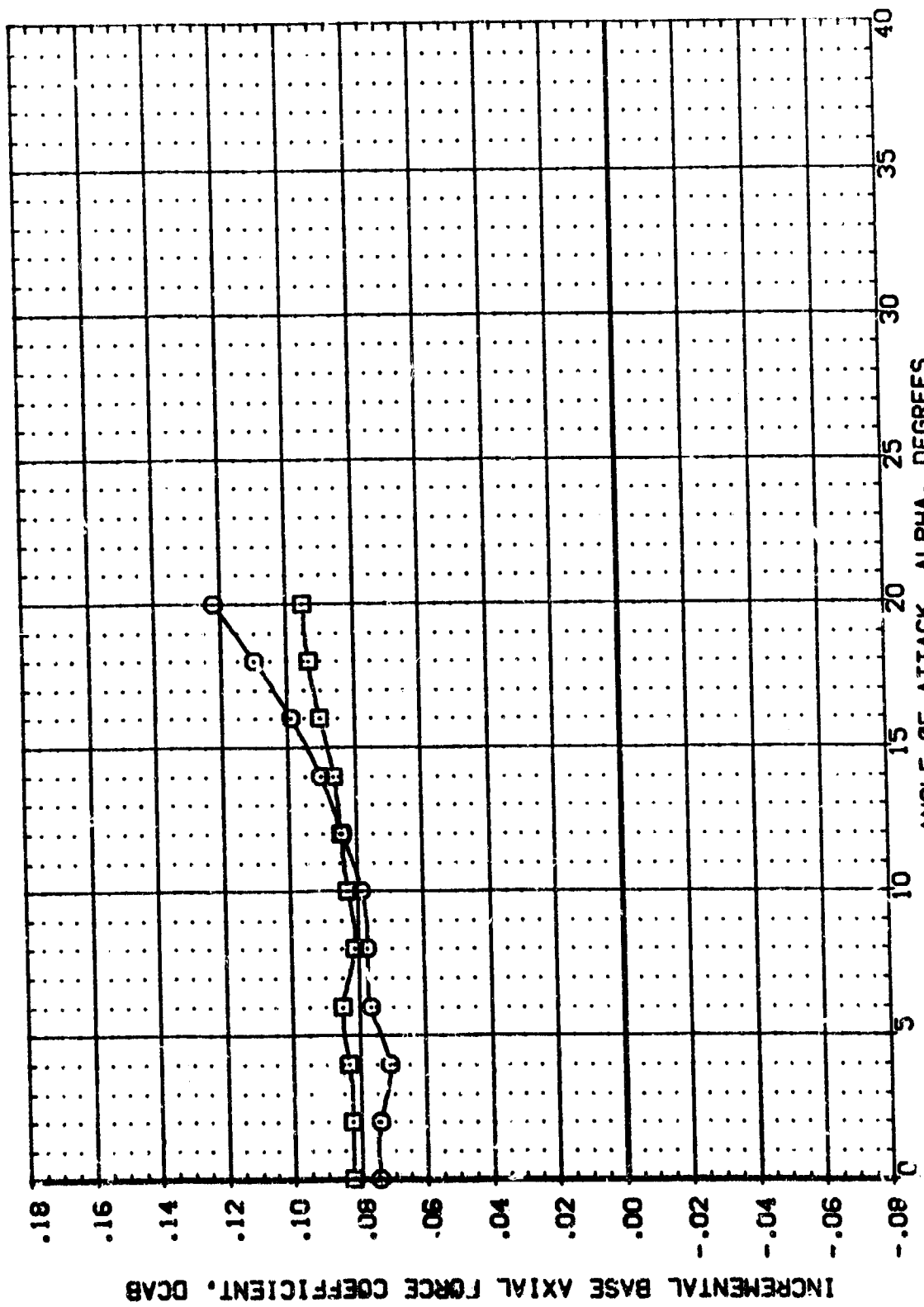


FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE
 (B)MACH = .90
 PAGE 1560

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XPRP 838.7000 IN.
 YPRP .0000 IN.
 ZPRP .0000 IN.
 SCALE .0040

BETA DE DBF
 .000 15.000 13.750
 .000 -40.000 -14.250
 .000 -20.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087577) MSFC 574(0A48) ORB 139 V/ALT NOSE
 (087581) MSFC 574(0A48) ORB 139 V/ALT NOSE
 (+87579) DATA NOT AVAILABLE

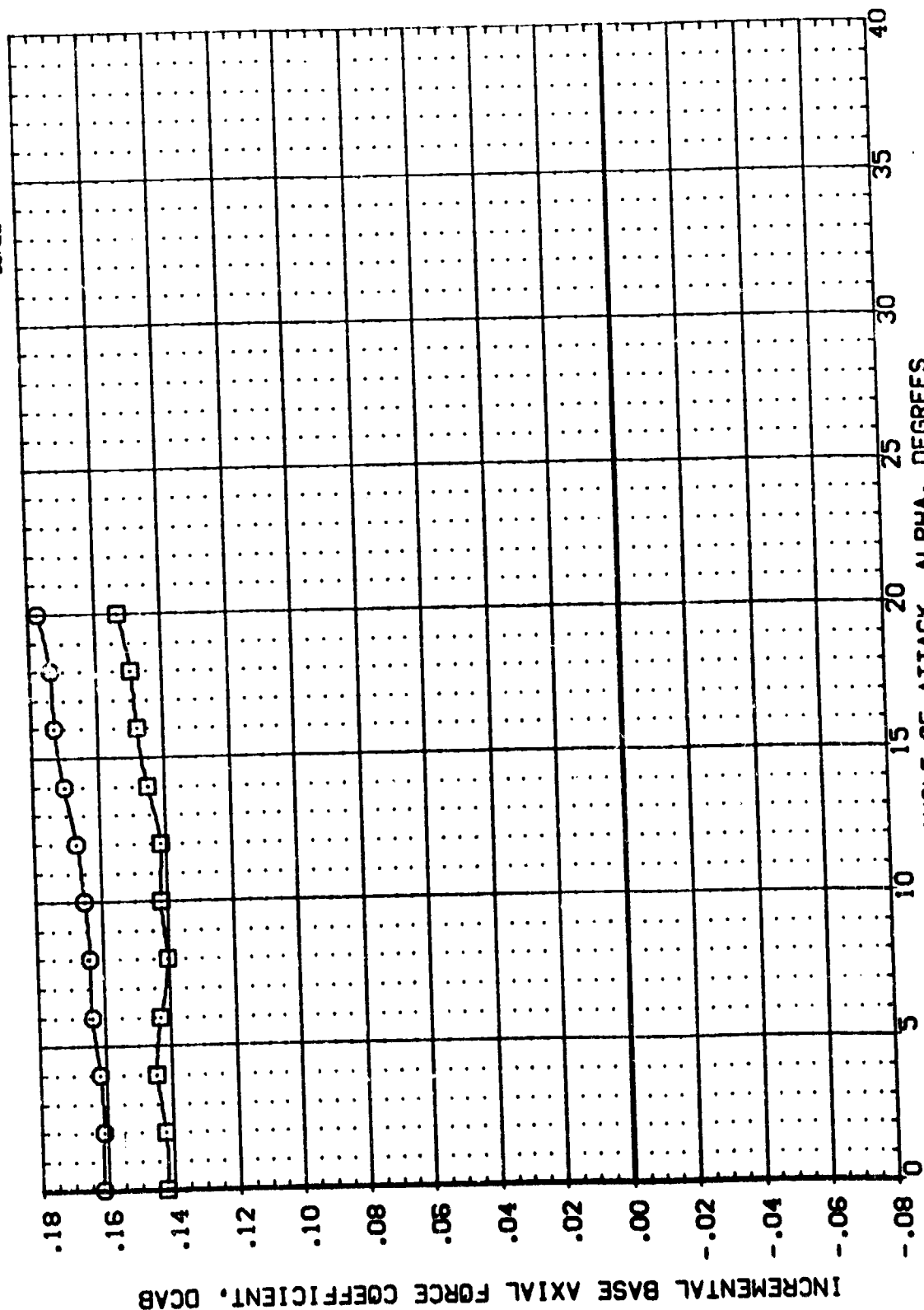


FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE
 (CJMACH = 1.20) PAGE 1561

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(087577) MSC 574(0A18) ORB 139 V/ALT NOSE

(087581) MSC 574(0A18) ORB 139 V/ALT NOSE

(+87579) MSC 574(0A18) ORB 139 V/ALT NOSE

BETA DE DBF

.000 15.000 13.750

.000 -40.000 -14.250

.000 -20.000 .000

REFERENCE INFORMATION

SREF 2690.0000 SQ.FT.

LREF 474.8200 IN.

BREF 936.7000 IN.

XMRP 836.7000 IN.

YMRP .0000 IN.

ZMRP .0000 IN.

SCALE .0040

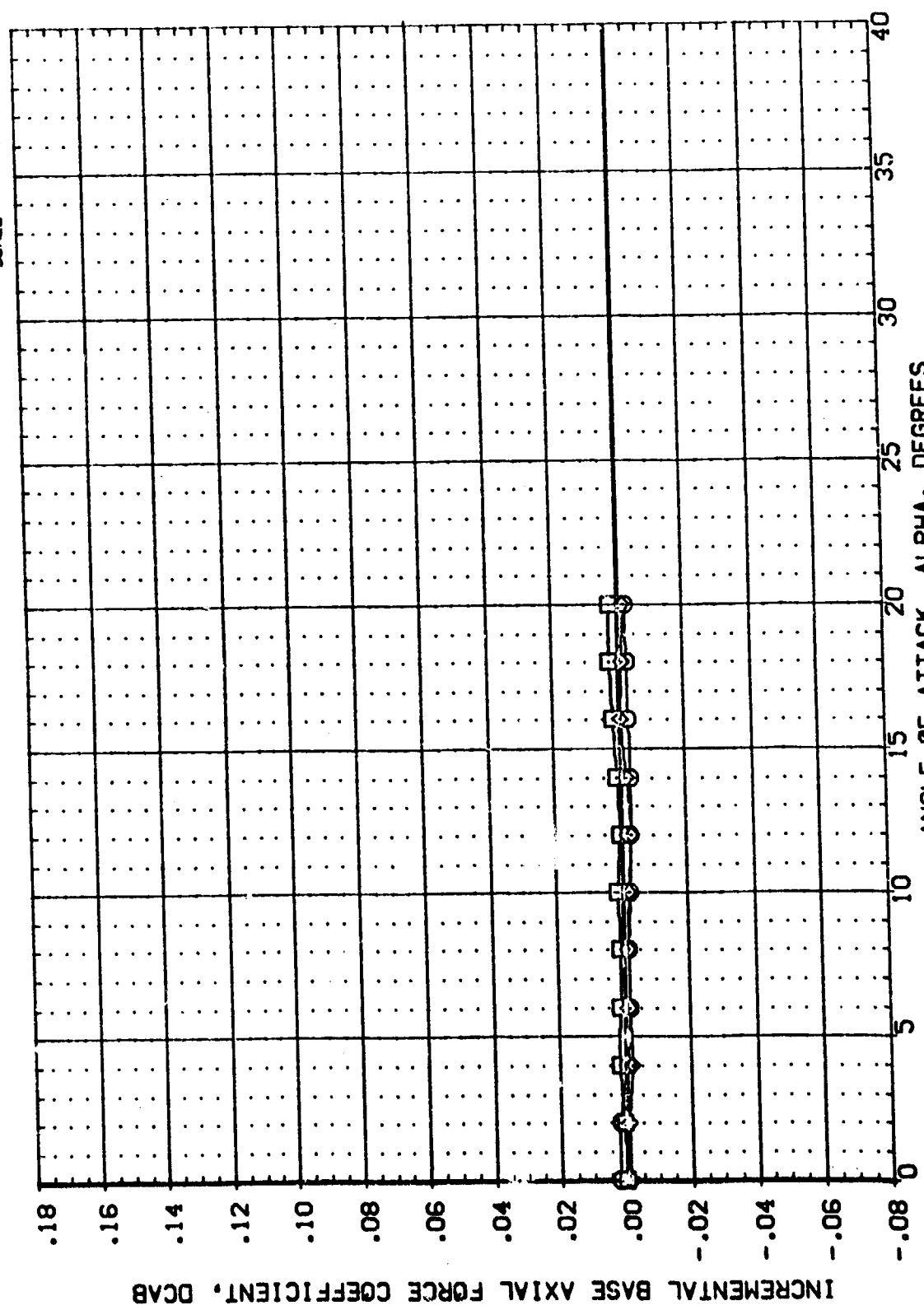


FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE

(C)MACH = 1.96

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REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XMRP 838.7000 IN.
 YMRP .0000 IN.
 ZMRP .0000 IN.
 SCALE .0040

BETA DE DBF
 .000 15.000 13.750
 .000 -10.000 -14.250
 .000 -20.000 .000

DATA SET SYMBL CONFIGURATION DESCRIPTION
 (087577) HSEC 57A(0A48) ORB 139 V/ALT NOSE
 (087581) HSEC 57A(0A48) ORB 139 V/ALT NOSE
 (+87579) HSEC 57A(0A48) ORB 139 V/ALT NOSE

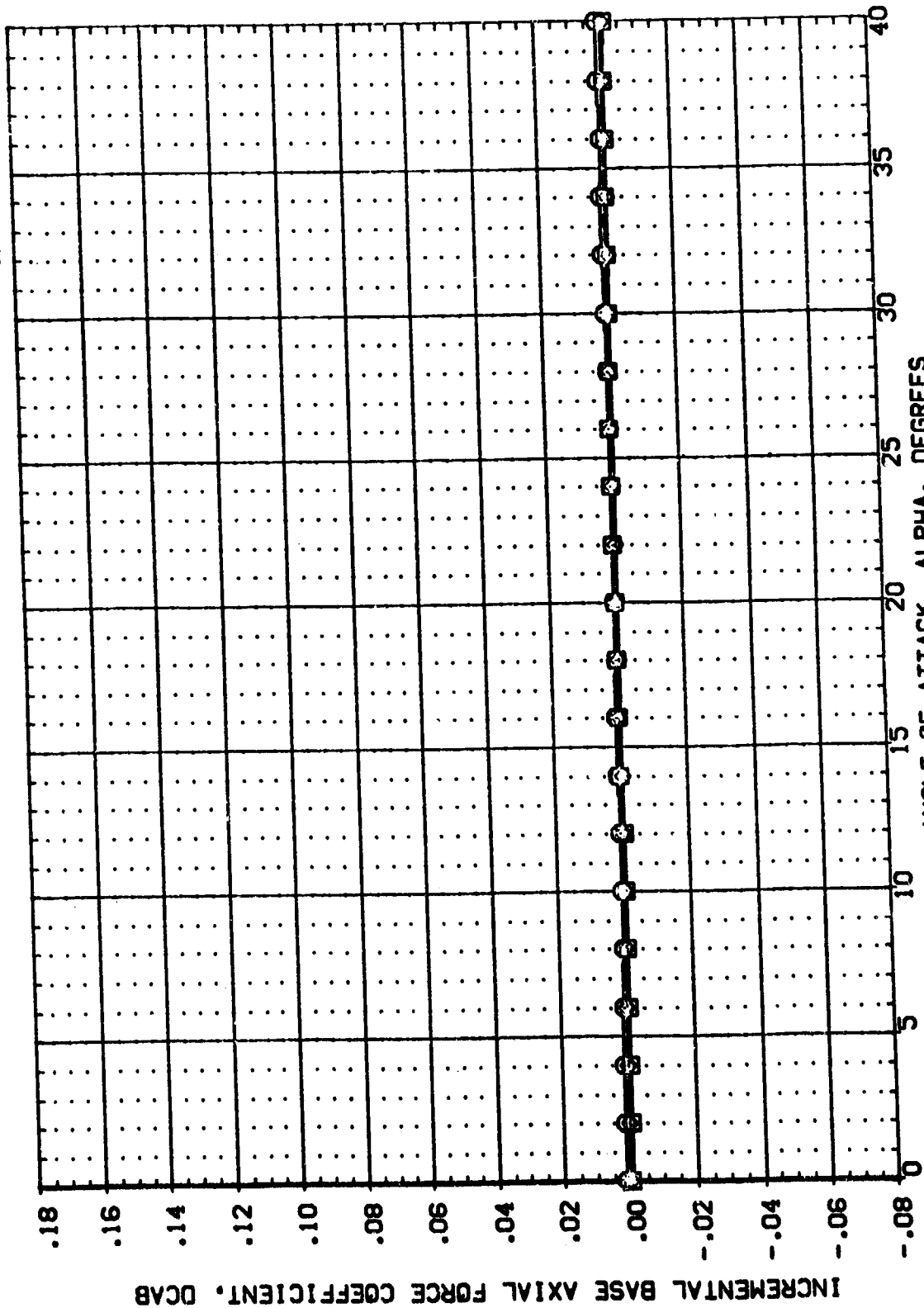


FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE
 (E)MACH = 2.99
 PAGE 1563

REFERENCE INFORMATION
 SREF 2630.0000 50.FT.
 LREF 474.8000 IN.
 BREF 936.7000 IN.
 XTRP 838.7000 IN.
 YTRP .0000 IN.
 ZTRP .0000 IN.
 SCALE .0040

BETA DE DBF
 .000 15.000 13.750
 .000 -10.000 -14.250
 .000 -20.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (087577) MSFC 574(DA48) ORB 139 W/ALT NOSE
 (087581) MSFC 574(DA48) ORB 139 W/ALT NOSE
 (487575) MSFC 574(DA48) ORB 139 W/ALT NOSE

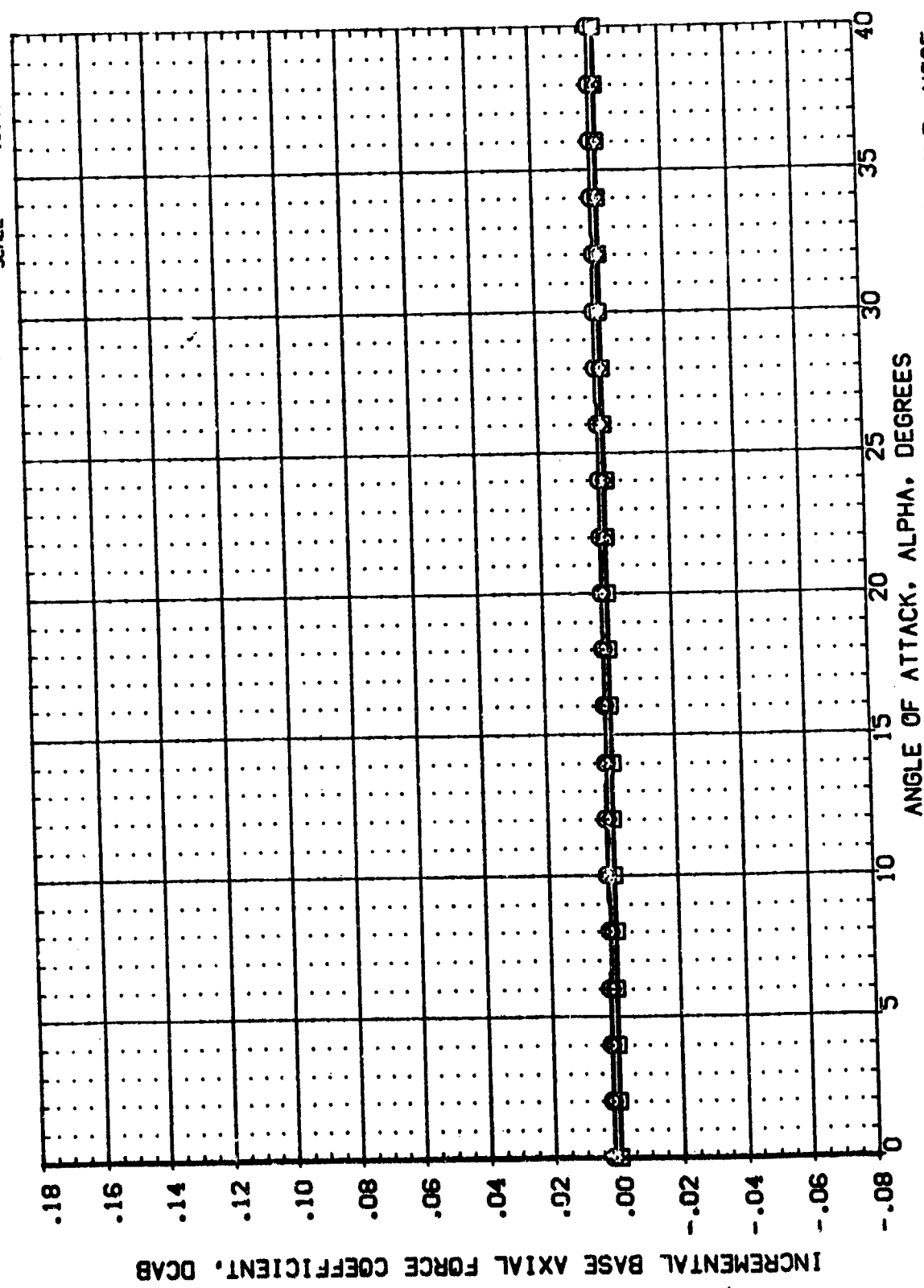


FIG. 41 INCREMENTAL MAX. SURFACE DEFEC. EFFECT. FOR ORB. 139 WITH ALT. NOSE
 (CF)MACH = 4.96

APPENDIX
TABULATED SOURCE DATA

Plotted data listings available on request
from the Data Management System.

DATE 26 SEP 75

TABULATED SOURCE DATA - MSFC TWT 574

PAGE 1

MSFC 574(0448) ORB 1398

(R67001) (17 SEP 75)

REFERENCE DATA

REF = 2890.0000 98.171. XREF = 836.7000 IN.
 LREF = 474.8000 IN. YREF = .0000 IN.
 SREF = 936.7000 IN. ZREF = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 AIRRON = .000 BOFLAP = .000
 SPDRK = 999.990 BLADPT = 2.000

RUN NO. 4/0 RWL = 4.46 GRADIENT INTERVAL = -5.00/ 5.00

WCH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAS	CL	CD	L/D
.997	-1.760	-1.1200	.04480	-.00510	.00140	.00230	.05320	.01530	-.11190	.05470	-2.04410
.997	1.170	-.01640	.04230	-.00750	.00160	.00390	.05320	.01390	-.01790	.05290	-.33110
.997	3.580	.06190	.04060	-.01040	.00190	.00330	.09060	.01540	.07840	.05510	1.42200
.997	5.590	.18580	.03870	-.01300	.00220	.00340	.04390	.01570	.18100	.04040	2.99390
.997	7.400	.28880	.03790	-.01740	.00210	.00290	.03390	.01500	.28010	.07080	3.96490
.997	9.470	.39920	.03680	-.01960	.00280	.00260	.02320	.01740	.38990	.06860	4.39900
.997	11.590	.51080	.03040	-.01780	.00260	-.00010	.02060	.01770	.49630	.12290	4.05150
.997	13.630	.63450	.02400	-.02590	.00190	-.00130	.02060	.01950	.61180	.16930	3.60770
.997	15.700	.74540	.02290	-.02680	.00210	-.00600	.02370	.02390	.71120	.22490	3.16670
.997	17.810	.89320	.01630	-.03190	.00220	-.00360	.01980	.02440	.84550	.28630	2.93210
.997	19.820	1.03710	.00000	-.04790	.00600	.00180	.01720	.03030	.96960	.36900	2.63500
.997	9.480	.40430	.03960	-.01970	.00250	.00280	.02300	.01550	.39500	.06940	4.41810
.997	.04326	-.00104	-.00132	-.00104	.00012	.00024	-.00066	.00003	.04732	.00011	.86189

RUN NO. 1/0 RWL = 4.90 GRADIENT INTERVAL = -5.00/ 5.00

WCH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAS	CL	CD	L/D
4.959	9.840	.15530	-.01810	-.00450	.00110	.00010	.07490	.00240	.14130	.09830	1.43730
4.959	-7.780	-.06650	-.02870	-.00270	.00110	.00060	.06850	.00200	-.06520	.08940	-.72940
4.959	1.130	-.02960	-.02650	-.00210	.00130	.00050	.06640	.00180	-.03130	.08580	-.36480
4.959	3.170	.01290	-.02270	-.00300	.00130	.00040	.06360	.00190	.00780	.08420	.09340
4.959	5.170	.05920	-.02100	-.00320	.00090	.00020	.07960	.00210	.04780	.08440	.56820
4.959	7.250	.10390	-.02100	-.00490	.00080	.00000	.07570	.00240	.09390	.08820	1.08030
4.959	9.240	.15490	-.01780	-.00180	.00080	-.00010	.07490	.00290	.14090	.09640	1.43140
4.959	11.270	.21220	-.01720	-.00370	.00060	.00000	.07200	.00300	.19400	.11210	1.72990
4.959	13.300	.27240	-.02050	-.00490	.00010	-.00010	.07060	.00310	.24680	.13140	1.89290
4.959	15.350	.33740	-.02190	-.00590	-.00010	-.00040	.06910	.00310	.30710	.15600	1.96860
4.959	17.360	.40680	-.02190	-.00480	-.00020	-.00030	.06680	.00390	.36760	.18720	1.96290
4.959	19.350	.47950	-.02490	-.00680	-.00020	-.00060	.06760	.00290	.42440	.22050	1.92390
4.959	.02233	.00109	-.00001	-.00001	-.00001	-.00005	-.00144	.00005	.02181	.00108	.21801

REFERENCE DATA

30027	=	2660.0000	30. FT.	1048P	=	636.7500	IN.
14027	=	474.6000	IN.	1448P	=	.0000	IN.
30027	=	936.7000	IN.	2448P	=	.0000	IN.
SCALE	=	.0040					

PARAMETRIC DATA

BETA	=	.000	ELEVTR	=	.000
AILROW	=	.000	BDFLAP	=	.000
SPDRBK	=	999.990	BLADPT	=	2.000

RUN NO.	3/0	RM/L	4.46	GRADIENT	INTERVAL	-5.00/	5.00
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WAGON	ALPHA	CM	CLM	CY	CYN	CSL	CA	CAS	CL	CD	L/D
.997	14.060	.70440	.02260	-.07460	.00230	-.00210	.01660	.02190	.67600	.19670	3.40190
.997	4.570	.03690	.03690	-.01310	.00190	.00310	.04670	.01460	.14190	.05680	2.43100
.997	6.575	.29690	.01490	-.01490	.00200	.00300	.03600	.03600	.23100	.03630	3.53470
.997	6.630	.34940	.03430	-.01900	.00290	.00300	.02600	.01440	.34120	.06010	4.23760
.997	10.690	.46440	.03120	-.06000	.00170	.00340	.01690	.01690	.45320	.10270	4.41160
.997	12.760	.57790	.02660	-.02060	.00190	.00000	.05000	.01900	.55910	.14740	3.79190
.997	14.060	.66610	.02290	-.02450	.00250	-.00370	.01650	.02070	.67000	.19700	3.40060
.997	16.940	.61500	.02100	-.02950	.00160	-.00940	.01760	.02390	.77450	.25450	3.04460
.997	19.040	.99620	.03410	-.03470	.00270	-.00240	.00950	.02530	.93650	.33410	2.60660
.997	21.190	1.13620	-.00670	-.04600	.00370	.00090	.02670	.02630	.12650	.41610	2.92660
.997	23.220	1.21760	.01010	-.03490	.00220	-.00170	.00640	.03720	.11160	.46790	2.29660
.997	25.160	1.20600	.05560	-.02960	-.00030	-.00910	.01560	.03620	1.06490	.52700	2.03650
GRADIENT	.05430	-.00133	-.00004	-.00314	.00004	-.00031	-.02273	.00070	.03194	.01365	-.09431

RUN NO. 2/0 RM/L = 4.91 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

MSFC 574 (0448) ORB 1398

(R87006) (17 SEP 73)

REFERENCE DATA

SREF = 2890.0000 38. FT. XREF = 938.7000 IN.
 LREF = 474.8000 IN. YREF = .0000 IN.
 SREF = 938.7000 IN. ZREF = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 ATLRON = .000 BDFLAP = .000
 SPDRNK = 999.999 BLADPT = 113.000

RUN NO. 5/ 0 RV/L = 4.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.602	-1.300	-1.0010	.04820	-.00340	.00110	.00270	.05340	.01910	-.09960	.05430	-1.63320
.602	1.460	.00300	.04140	-.00590	.00110	.00310	.03250	.01930	.00170	.05250	.03290
.602	3.560	.11060	.09970	-.00610	.00150	.00300	.04930	.02020	.10740	.05610	1.91330
.602	5.890	.21200	.03920	-.01050	.00170	.00280	.04170	.02010	.20690	.06240	3.31330
.602	7.750	.32140	.03330	-.01090	.00200	.00280	.03120	.01980	.31430	.07430	4.22950
.602	9.860	.43690	.02900	-.01120	.00190	.00320	.02200	.01930	.42660	.09680	4.42480
.602	11.970	.56030	.02510	-.00780	-.00070	.00320	.02040	.01930	.54360	.13780	3.94310
.602	14.070	.67460	.01940	-.01630	.00140	.00350	.02340	.02380	.64810	.18870	3.43330
.602	16.170	.77930	.02370	-.01470	.00110	.00320	.02860	.02990	.74040	.24480	3.02460
.602	18.300	.93230	.01190	-.01790	.00130	.00140	.02320	.03300	.87760	.31490	2.78740
.602	20.360	1.09580	-.00280	-.02440	.00220	.00350	.02180	.03680	1.01970	.40170	2.53610
.602	9.860	.43760	.03250	-.01210	.00210	.00310	.02250	.02000	.42730	.09720	4.39370
.602	.05164	-.00159	-.00066	.00010	.00007	.00007	-.00101	.00027	.05073	.00045	.91603

RUN NO. 6/ 0 RV/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.959	-1.380	-.05660	-.02330	-.00100	.00070	.00030	.08700	.00290	-.05600	.08750	-.63990
4.959	1.380	-.02120	-.02600	-.00100	.00060	.00030	.08440	.00310	-.02320	.08390	-.27680
4.959	3.430	.02430	-.01490	.00120	-.00060	.00030	.08100	.00400	.01940	.08230	.23650
4.959	5.480	.06900	-.02080	.00180	.00000	.00000	.07710	.00450	.06140	.08330	.73690
4.959	7.490	.11780	-.02060	-.00040	.00030	.00000	.07380	.00460	.10710	.08830	1.20980
4.959	9.530	.17230	-.01760	.00040	.00040	.00010	.07230	.00480	.15790	.09980	1.58150
4.959	11.560	.22930	-.01970	-.00060	.00020	.00010	.07020	.00490	.21070	.11490	1.83420
4.959	13.600	.29110	-.02000	-.00120	-.00020	.00000	.06840	.00500	.26680	.13500	1.97580
4.959	15.650	.35530	-.02090	-.00110	.00030	.00000	.06600	.00500	.32370	.16130	2.00630
4.959	17.690	.42480	-.02210	-.00180	.00020	.00000	.06350	.00510	.38460	.19230	1.99950
4.959	19.640	.49690	-.02470	-.00320	-.00030	.00000	.06100	.00510	.44600	.22870	1.94970
4.959	.17280	-.01780	-.00020	.00000	.00000	.00000	.07180	.00510	.15850	.09950	1.59310
4.959	.02055	.00217	.00056	-.00033	-.00000	-.00000	-.00152	.00038	.01911	-.00131	.22225

REFERENCE DATA

REF = 2880.0000 98.77. XREF = 838.7000 IN.
LREF = 474.8000 IN. YREF = .0000 IN.
BREF = 936.7000 IN. ZREF = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
AIRLON = .000 BFLAP = .000
SPDRBK = 999.990 BLADPT = 113.000

RUN NO. 5/ 0 RUL = 4.48 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/O
.997	20.980	1.12430	-.01150	-.02970	.00250	.00440	.01770	.03660	1.04580	.41680	2.49150
.997	22.860	1.20690	.00120	-.02300	.00050	-.00140	.01920	.03940	1.10040	.48830	2.26840
.997	24.970	1.20850	.04380	-.01810	.00030	-.00860	.02530	.04700	1.07940	.53070	2.03390
.997	26.920	1.11120	.08330	-.01500	.00700	-.02120	.04000	.06030	.97280	.53860	1.80480
.997	28.910	1.08020	.10410	-.01640	.00040	-.01430	.04670	.06890	.92300	.56320	1.63090
.997	30.940	1.14130	.10110	-.01570	-.00010	-.00340	.04390	.07400	.95600	.62480	1.53010
.997	33.050	1.26240	.09560	-.01810	.00030	-.00370	.03740	.07500	1.02090	.70900	1.43990
.997	35.110	1.31730	.09570	-.01900	.00120	-.00490	.03370	.07500	1.05610	.78540	1.34710
.997	37.170	1.38810	.08720	-.02720	.00240	-.00220	.03110	.07950	1.08710	.86360	1.25880
.997	39.280	1.46800	.09000	-.03220	.00200	-.00290	.02930	.09000	1.13980	.96960	1.17530
.997	41.230	1.54140	.10430	-.02570	.00120	-.00330	.02590	.09340	1.14340	1.03580	1.10590
.997	30.970	1.14460	.10430	-.01830	-.00020	-.00320	.04500	.07230	.95620	.62780	1.35810
GRADIENT		.01972	.00479	-.00023	-.00003	.00005	.00028	.00278	.00432	.02975	-.06380

RUN NO. 7/ 0 RUL = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/O
4.999	20.280	.51360	-.02590	-.00490	-.00090	-.00030	.07100	.00100	.45720	.24440	1.87050
4.999	22.180	.59900	-.02720	-.00500	-.00060	-.00020	.07050	.00130	.51860	.28770	1.80290
4.999	24.250	.67350	-.02950	-.00600	-.00090	-.00010	.06880	.00210	.58560	.33940	1.72370
4.999	26.300	.75680	-.03410	-.00700	-.00160	-.00020	.06570	.00330	.64930	.39430	1.64640
4.999	28.380	.84850	-.03780	-.00680	-.00130	.00010	.06300	.00450	.71570	.46040	1.55480
4.999	30.420	.94270	-.04350	-.01060	-.00090	-.00010	.06480	.00470	.78010	.53330	1.46270
4.999	32.480	1.03650	-.05020	-.01240	-.00090	-.00040	.06280	.00470	.84230	.61070	1.37930
4.999	34.540	1.13390	-.05590	-.01290	-.00090	-.00060	.06160	.00440	.89900	.69380	1.29560
4.999	36.600	1.23200	-.06330	-.01270	-.00090	-.00070	.06010	.00440	.95320	.78290	1.21740
4.999	38.660	1.32650	-.06860	-.01330	-.00140	-.00070	.05870	.00430	.99910	.87450	1.14230
4.999	40.630	1.43680	-.07790	-.01600	-.00130	-.00060	.05680	.00420	1.05210	.96120	1.07330
4.999	30.420	.94560	-.04290	-.00940	-.00140	-.00160	.06480	.00470	.78260	.53460	1.46390
GRADIENT		.04518	-.00263	-.00056	-.00001	-.00003	-.00064	.00017	.02936	.03596	-.04003

DATE 28 SEP 73

TABULATED SOURCE DATA - NSFC TWT 574

NSFC 574 (0448) ORB 1398

PAGE 3

(16 JUL 73)

REFERENCE DATA

SRCP = 2000.0000 50. FT. XMRP = 838.7000 IN.
LREF = 474.0000 IN. YMRP = .0000 IN.
SRCP = 936.7000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
ATLRON = .000 BOFLAP = .000
SPDRBK = 999.990

RUN NO. 79/ 0 RV/L = 4.91 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CEL	CA	CAS	CL	CD	L/D
.997	-1.490	-0.06230	.04450	-.01270	.00250	.00130	.09990	.02910	-.06180	.05640	-1.09610
.997	1.470	.03820	.04220	-.01410	.00220	.00110	.05400	.02720	.03060	.05480	.58860
.997	3.960	.13960	.04010	-.01320	.00210	.00070	.04890	.02640	.13230	.05690	2.32490
.997	5.680	.24070	.04030	-.01670	.00260	.00010	.03880	.02630	.06240	.06240	3.77290
.997	7.770	.34210	.03700	-.01920	.00240	-.00060	.02920	.02740	.33900	.07320	4.43330
.997	9.880	.46390	.03210	-.02120	.00240	-.00010	.02000	.02680	.45360	.09930	4.56470
.997	11.990	.59010	.02310	-.02220	.00190	-.00100	.02390	.03100	.57220	.14600	3.91780
.997	14.130	.70610	.02030	-.02680	.00300	-.00130	.02510	.03360	.67660	.19680	3.44810
.997	16.190	.81740	.01480	-.03170	.00420	-.00200	.02800	.03710	.77710	.25490	3.04860
.997	18.320	.97180	.00490	-.03420	.00440	-.00300	.02220	.03040	.91550	.32660	2.60280
.997	20.350	1.11590	-.00940	-.03690	.00430	-.00130	.01950	.04340	1.03910	.40630	2.55730
.997	9.880	.46720	.03260	-.02020	.00230	.00030	.01980	.02870	.45680	.09980	4.57620
.997	.04863	-.00106	-.00061	-.00010	-.00015	-.00015	-.00183	-.00042	.04770	.00013	.84040

RUN NO. 80/ 0 RV/L = 6.16 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CEL	CA	CAS	CL	CD	L/D
.893	-1.380	-0.09980	.06760	-.01760	.00350	.00140	.06490	.02730	-.06900	.06570	-1.35410
.893	1.360	.02420	.06080	-.01690	.00350	.00160	.06440	.02670	.02250	.06500	.34640
.893	3.720	.14770	.04860	-.02190	.00320	.00090	.06430	.02690	.14320	.07380	1.94000
.893	5.890	.26640	.03890	-.02360	.00340	.00030	.06420	.02670	.25840	.09120	2.83230
.893	8.050	.38420	.02240	-.02470	.00280	-.00010	.06410	.02690	.37140	.11730	3.16450
.893	10.230	.50760	.00600	-.02460	.00260	-.00110	.06690	.03100	.48760	.15600	3.12410
.893	12.420	.64110	-.00420	-.02500	.00220	-.00120	.06730	.03490	.61160	.20370	3.00230
.893	14.630	.77260	-.01590	-.02680	.00340	-.00140	.06790	.03930	.73040	.26090	2.79920
.893	16.830	.90270	-.02430	-.03100	.00390	-.00140	.07040	.04410	.84360	.32880	2.56520
.893	18.980	1.02000	-.02170	-.03080	.00120	-.00380	.07210	.04980	.94110	.39990	2.35280
.893	21.040	1.09290	-.00770	-.02710	.00060	-.00460	.07680	.05840	.99250	.46410	2.13640
.893	10.230	.51540	.00790	-.02290	.00240	-.00100	.06700	.03190	.49520	.15760	3.14140
.893	.05597	-.00450	-.00102	-.00102	-.00007	-.00012	-.00014	-.00009	.03477	.00194	.77622

DATE 28 SEP 73

TABULATED SOURCE DATA - NSFC TMT 574

PAGE 6

NSFC 574 (0448) ORB 1398

(RBT008) (18 JUL 73)

REFERENCE DATA

3407 = 2000.0000 80.FT. 3407 = 838.7000 IN.
 3407 = 474.8000 IN. 3407 = .0000 IN.
 3407 = 956.7000 IN. 3407 = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 ALLCON = .000 BOFLAP = .000
 SPDRK = 999.999

RUN NO. 81/ D RM/L = 6.63 GRADIENT INTERVAL = -5.00/ 5.00

NACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/O
1.196	-3.00	.00990	.04370	-.01490	.00340	.00090	.16950	.05640	.01000	.16950	.05950
1.196	1.700	.13950	.01330	-.01670	.00330	.00090	.16950	.05640	.13450	.17100	.78640
1.196	3.940	.27970	-.01180	-.01830	.00360	.00030	.16310	.05550	.26360	.18370	1.43490
1.196	6.140	.40310	-.03680	-.01990	.00360	.00020	.16140	.05620	.38350	.20360	1.88310
1.196	8.370	.52140	-.04410	-.02070	.00320	-.00040	.15720	.05730	.49300	.23150	2.12960
1.196	10.610	.63480	-.05790	-.02740	.00350	.00150	.15430	.05980	.61520	.27220	2.25980
1.196	12.850	.79910	-.07780	-.02700	.00460	.00130	.15240	.06470	.74130	.32540	2.27750
1.196	15.080	.96350	-.09310	-.02490	.00290	-.00120	.14810	.06840	.83230	.38620	2.20640
1.196	17.290	1.04270	-.10260	-.02570	.00290	-.00130	.14760	.07370	1.02780	.45140	2.10770
1.196	19.480	1.14270	-.10310	-.02710	.00190	-.00130	.14480	.07680	1.09770	.52060	1.97420
1.196	21.370	1.23780	-.10390	-.02720	.00140	-.00130	.14480	.07680	.81800	.56980	1.86110
1.196	10.610	.63480	-.09310	-.02490	.00290	-.00120	.14810	.06840	.27300	.26350	
GRADIENT		.06175	-.01284	-.00079	.00005	-.00014	-.00079	-.00021	.05969	.00355	.31801

RUN NO. 59/ D RM/L = 6.36 GRADIENT INTERVAL = -5.00/ 5.00

NACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/O
1.932	-3.30	-.03780	.01100	-.01410	.00220	.00030	.14270	.03080	-.03650	.14500	-.23570
1.932	1.310	.04900	-.00040	-.01900	.00230	.00010	.14120	.03110	.04530	.14240	.31820
1.932	3.710	.14210	-.01350	-.01620	.00220	-.00030	.13850	.03080	.13280	.14730	.90050
1.932	5.910	.23980	-.02750	-.01680	.00190	-.00020	.13670	.02930	.22440	.16070	1.39630
1.932	8.080	.32380	-.03560	-.01690	.00170	-.00050	.12970	.02630	.30240	.17450	1.73780
1.932	10.230	.39920	-.03780	-.01690	.00160	-.00070	.12520	.02770	.37100	.19220	1.91040
1.932	12.430	.49540	-.04220	-.01760	.00160	-.00100	.11970	.02760	.45800	.22360	2.01820
1.932	14.650	.59820	-.04630	-.01830	.00140	-.00110	.11560	.02930	.53980	.26150	2.17040
1.932	16.810	.67730	-.05140	-.01910	.00100	-.00110	.11140	.03030	.61610	.29260	2.03560
1.932	19.030	.78030	-.05750	-.01810	.00040	-.00110	.10890	.03120	.70200	.32030	1.96370
1.932	21.130	.87420	-.06350	-.01780	-.00020	-.00100	.10480	.03050	.77760	.41300	1.86270
1.932	10.230	.39920	-.03780	-.01690	.00160	-.00080	.12140	.02750	.37050	.19130	1.94650
GRADIENT		.04245	-.00376	-.00050	-.00000	-.00014	-.00099	.00004	.03993	.00108	.27256

DATE 28 SEP 73

TABULATED SOURCE DATA - MSFC TWT 374

PAGE 7

MSFC 374 (0A48) ORB 1398

(R07008) (10 JUL 73)

REFERENCE DATA

SREF = 2000.0000 SQ.FT. XMRP = 838.7000 IN.
 LREF = 474.8000 IN. YMRP = .0000 IN.
 BREF = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 ATLRON = .000 BOFLAP = .000
 SPCBRK = 999.990

RUN NO. 18/ 0 RN/L = 4.14 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CSL	CA	CAB	CL	CD	L/D
2.990	-1.540	-0.04970	-0.01480	-0.00080	.00040	.00040	.10930	.01740	-.04870	.10980	-.44340
2.990	1.410	.00170	-.01420	-.00100	.00030	.00030	.10760	.01770	-.00060	.10760	-.00810
2.990	3.480	.00910	-.01540	-.00080	.00020	.00020	.10460	.01790	.03270	.10800	.48820
2.990	5.540	.12110	-.01460	-.00060	.00040	.00030	.10030	.01790	.11080	.11190	.98390
2.990	7.610	.18450	-.01790	-.00110	.00020	.00010	.09710	.01830	.17000	.12070	1.40820
2.990	9.680	.25130	-.02110	-.00240	.00040	.00010	.09370	.01800	.23190	.13470	1.72170
2.990	11.760	.32210	-.02320	-.00220	.00060	.00000	.09140	.01800	.29670	.15320	1.91110
2.990	13.830	.39110	-.02560	-.00280	.00000	.00000	.08960	.01850	.35830	.18060	1.96370
2.990	15.910	.46440	-.02740	-.00340	.00030	.00000	.08690	.01800	.42270	.21100	2.00310
2.990	17.970	.54010	-.03190	-.00410	.00030	.00000	.08330	.01800	.48740	.24780	1.96630
2.990	19.980	.61600	-.03550	-.00520	.00000	.00000	.08300	.01810	.55060	.28830	1.91000
2.990	9.690	.23520	-.02200	-.00240	.00040	.00000	.08380	.01820	.23570	.13340	1.74080
GRADIENT	.02721	-.00015	.00005	.00005	-.00005	-.00002	-.00118	.00012	.02536	-.00044	.23298

RUN NO. 19/ 0 RN/L = 5.06 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CSL	CA	CAB	CL	CD	L/D
4.939	-1.500	-.05650	-.02700	-.00090	.00090	.00020	.08550	.00380	-.05770	.08600	-.67180
4.939	1.400	-.02110	-.02660	-.00100	.00060	.00020	.08290	.00390	-.02310	.08240	-.28120
4.939	3.410	.02070	-.01960	.00000	.00030	.00030	.08030	.00400	.01580	.08140	.19310
4.939	5.480	.06780	-.02130	-.00010	.00010	.00000	.07720	.00410	.06010	.08330	.72180
4.939	7.490	.11740	-.02060	.00020	.00040	.00000	.07370	.00420	.10680	.08840	1.20710
4.939	9.530	.17030	-.01860	.00010	.00010	-.00010	.07270	.00420	.15590	.09990	1.55990
4.939	11.560	.22720	-.01920	-.00060	.00060	.00000	.07040	.00430	.20850	.11450	1.81970
4.939	13.600	.28960	-.02300	-.00110	.00010	-.00030	.06630	.00430	.26590	.13260	2.00480
4.939	15.630	.35670	-.02250	-.00170	.00070	-.00050	.06830	.00440	.32510	.16210	2.00560
4.939	17.690	.42690	-.02630	-.00310	.00030	-.00070	.06670	.00440	.38640	.19330	1.99820
4.939	19.640	.49750	-.02640	-.00310	.00080	-.00070	.06660	.00430	.44610	.23030	1.93940
4.939	9.530	.16970	-.01980	-.00150	.00030	-.00020	.07200	.00440	.15540	.09910	1.56830
GRADIENT	.02026	.00186	.00023	.00015	-.00015	.00003	-.00133	.00005	.01880	-.00117	.22181

REFERENCE DATA
BRTF = 2690.0000 88. FT. XMRP = 838.7000 IN.
LRLP = 474.8000 IN. YMRP = .0000 IN.
BRTF = 936.7000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA
BETA = .000 ELEVTR = .000
AILRON = .000 BIDFLAP = .000
SPDBRK = 999.999

RUN NO. 82/ 0 RW/L = 4.54 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.999	20.970	1.14310	-.00930	-.01910	.00460	-.00020	.02070	.04580	1.05990	.42680	2.47280
.999	22.960	1.23010	-.00080	-.01350	.00540	.00310	.01990	.04960	1.12480	.49820	2.23760
.999	24.960	1.19370	.00230	-.01150	.00290	-.00340	.02670	.05960	1.07250	.52930	2.02610
.999	26.910	1.08690	.05460	-.02160	.00410	-.01270	.04020	.06810	.95080	.52780	1.80130
.999	28.910	1.07350	.10630	-.02850	.00020	-.00260	.04620	.07500	.91900	.56030	1.63970
.999	30.910	1.15700	.09630	-.02950	-.00020	-.00320	.04190	.07940	.97030	.63160	1.53630
.999	33.090	1.25960	.09700	-.02200	-.00140	-.00480	.03820	.07640	1.01820	.70820	1.43760
.999	35.130	1.30990	.09680	-.01840	-.00130	-.00780	.03500	.08220	1.05020	.78190	1.34300
.999	37.210	1.39970	.08750	-.01980	.00040	-.01040	.03140	.08540	1.09570	.87130	1.25710
.999	39.250	1.45920	.10390	-.02710	-.00020	-.00800	.02780	.09290	1.11230	.94490	1.17720
.999	41.200	1.51330	.11030	-.03320	.00080	-.00240	.02240	.09340	1.12370	1.01380	1.10640
.999	30.960	1.15660	.10030	-.02750	-.00040	-.00350	.04240	.07810	.96970	.63180	1.53480
GRADIENT	.01795	.00496	.00064	.00027	.00024	.00015	.00015	.00212	.00294	.02866	-.06903

RUN NO. 21/ 0 RW/L = 4.11 GRADIENT INTERVAL = -2.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	20.600	.68290	-.03420	-.00780	-.00040	-.01030	.08120	.01700	.55440	.29530	1.87730
2.990	22.570	.70070	-.03640	-.01980	-.00040	-.01010	.07790	.01710	.61680	.34190	1.60390
2.990	24.630	.76360	-.04330	-.02970	-.00060	-.01040	.07090	.01700	.69020	.39660	1.71490
2.990	26.770	.87230	-.04730	-.01030	-.00090	-.00040	.07140	.01750	.74480	.42060	1.61680
2.990	28.840	.96110	-.05150	-.01120	-.00030	-.00020	.07370	.01740	.80630	.52830	1.52590
2.990	30.940	1.05230	-.03710	-.01250	-.00020	-.00050	.07160	.01800	.86370	.60250	1.43670
2.990	33.040	1.14700	-.06220	-.01470	.00020	-.00050	.06960	.01840	.92350	.68390	1.35030
2.990	35.140	1.24450	-.06860	-.01690	.00130	-.00140	.06730	.01850	.97880	.77140	1.26880
2.990	37.240	1.34160	-.07710	-.01880	.00130	-.00170	.06450	.01870	1.02890	.86330	1.19170
2.990	39.340	1.43640	-.08520	-.01980	.00130	-.00160	.06260	.01870	1.07110	.95910	1.11670
2.990	41.330	1.52140	-.09180	-.02030	.00120	-.00130	.06010	.01850	1.10270	1.05000	1.05010
2.990	30.930	1.05730	-.05640	-.01350	-.00030	-.00050	.07120	.01800	.87000	.60490	1.47830
GRADIENT	.04375	.00275	.00067	.00011	.00008	.00010	.00100	.00265	.02669	.03669	-.04064

NSFC 574 (0A48) CTD 1320

(R07009) (18 JUL 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XGRP = 638.7000 IN.
 LREF = 474.8000 IN. YGRP = .0000 IN.
 CREF = 936.7000 IN. ZGRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 AIRCON = .000 BDFLAP = .000
 SFCORR = 999.999

RUN NO. 20/ 0 RN/L = 5.04 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLH	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.959	20.270	.51120	-.02620	-.00410	.00000	-.00060	.06790	.00380	.15620	.24050	1.89050
4.959	22.190	.50310	-.02920	-.00630	-.00070	-.00060	.06500	.00380	.16890	.26200	1.83290
4.959	24.240	.66290	-.03210	-.00650	-.00080	-.00020	.06500	.00370	.17740	.33140	1.74230
4.959	26.220	.75160	-.03640	-.00750	-.00090	-.00040	.06410	.00390	.16490	.36970	1.65730
4.959	28.360	.84670	-.04120	-.00790	-.00070	-.00040	.06440	.00390	.17440	.43890	1.55650
4.959	30.420	.94050	-.04510	-.00850	-.00060	-.00050	.06410	.00390	.17690	.53150	1.46470
4.959	32.480	1.03750	-.05180	-.01100	.00000	-.00070	.06320	.00390	.18420	.61050	1.37780
4.959	34.560	1.13310	-.05940	-.01280	.00000	-.00110	.06190	.00390	.18900	.69900	1.29440
4.959	36.600	1.23340	-.06780	-.01400	.00030	-.00120	.06150	.00370	.19350	.78480	1.21490
4.959	38.600	1.33100	-.07500	-.01390	-.00000	-.00120	.06040	.00390	1.00130	.87870	1.13970
4.959	40.610	1.42330	-.08300	-.01500	-.00070	-.00120	.05980	.00330	1.04140	.97200	1.07140
4.959	42.600	.94260	-.04640	-.00920	-.00090	-.00060	.06380	.00370	.17850	.53230	1.46000
4.959	30.420	.04531	-.00230	-.00054	.00001	-.00014	-.00034	-.00002	.02039	.05623	-.04163

GRADIENT

DATE 24 SEP 73

(R07010) (19 JUL 73)

MSFC 574 (0448) CRB 1398

PARAMETRIC DATA

ALPHA = .000 ELEVTR = .000
 AIRLON = .000 BCFLAP = .000
 SPDRK = 999.999

REFERENCE DATA

REF = 2090.0000 94.FT. XPRP = 938.7000 IN.
 LREF = 474.0000 IN. YPRF = .0000 IN.
 BREF = 938.7000 IN. ZPRP = .0000 IN.
 SCALE = .0040

RUN NO. 73/ 0 RV/L = 4.65 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.998	-10.420	-.06220	.02870	.18620	-.01850	.00420	.04890	.03270	-.06160	.04970	-1.23910
.998	-8.400	-.06410	.03220	.14900	-.01510	.00400	.05210	.03090	-.06350	.05290	-1.19890
.998	-6.430	-.07410	.03730	.10800	-.00990	.00290	.05360	.03040	-.07340	.05470	-1.34010
.998	-4.400	-.08250	.04080	.06770	-.00360	.00170	.05310	.02890	-.08180	.05610	-1.45680
.998	-2.380	-.08680	.04380	.03100	-.00230	.00090	.05640	.02880	-.08810	.05780	-1.52900
.998	-.330	-.09580	.04580	-.01060	.00140	.00010	.05640	.02810	-.09300	.05770	-1.64670
.998	1.700	-.09450	.04390	-.04810	.00430	-.00020	.05480	.02850	-.09370	.05610	-1.67120
.998	3.770	-.08990	.04170	-.08000	.00680	-.00100	.05320	.02970	-.09320	.05510	-1.72630
.998	5.780	-.09420	.03690	-.12070	.01340	-.00200	.05260	.03070	-.09350	.05380	-1.73630
.998	7.800	-.09350	.03470	-.17040	.01790	-.00230	.05160	.03370	-.09280	.05290	-1.75460
.998	9.730	-.08540	.03240	-.20120	.02020	-.00200	.05060	.03760	-.08470	.05170	-1.83930
.998	GRADIENT	-.09780	.04580	-.01020	.00140	.00010	.05670	.02830	-.09700	.05600	-1.67300
		-.00159	.00009	-.01914	.00176	-.00032	-.00020	.00006	-.00159	-.00017	-.03338

RUN NO. 74/ 0 RV/L = 6.12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.998	-10.580	-.10220	.04530	.21820	-.02630	.00230	.06740	.03670	-.10120	.06680	-1.41130
.998	-8.600	-.10640	.05100	.17900	-.02280	.00400	.06490	.03370	-.10590	.06640	-1.58910
.998	-6.520	-.10890	.05680	.13610	-.01810	.00420	.06550	.03120	-.10760	.06700	-1.60470
.998	-4.450	-.11980	.06250	.08510	-.01020	.00300	.06530	.03080	-.11890	.06700	-1.77310
.998	-2.390	-.12790	.06680	.03760	-.00400	.00190	.06640	.02790	-.12630	.06820	-1.85060
.998	-.320	-.13400	.06870	-.00860	.00150	.00090	.06520	.02800	-.13310	.06710	-1.98360
.998	1.730	-.13590	.06830	-.05130	.00670	.00020	.06480	.02850	-.13290	.06670	-1.99210
.998	3.830	-.13120	.06280	-.10170	.01390	-.00110	.06390	.03020	-.13020	.06570	-1.98020
.998	5.870	-.13160	.05820	-.15300	.02190	-.00150	.06540	.03250	-.13070	.06730	-1.94030
.998	7.920	-.13020	.05150	-.19810	.02650	-.00170	.06800	.03620	-.12920	.06790	-1.90330
.998	9.880	-.13110	.04560	-.23480	.02940	-.00060	.06680	.04120	-.13010	.06880	-1.89090
.998	GRADIENT	-.13640	.07020	-.01150	.00190	.00010	.06850	.02750	-.13540	.07050	-1.92100
		-.00142	.00000	-.02237	.00285	-.00048	-.00021	-.00003	-.00141	-.00020	-.02665

DATE 28 SEP 73

TABULATED SOURCE DATA - NSFC TWT 374

PAGE 11

NSFC 574 (0A48) ORB 1398

(0807010) (18 JUL 73)

REFERENCE DATA

SREF = 2890.0000 90. FT. XREF = 838.7000 IN.
 LREF = 474.8000 IN. YREF = .0000 IN.
 BREF = 936.7000 IN. ZREF = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

ALPHA = .000 ELEVTR = .000
 ATLRON = .000 BOFLAP = .000
 SPDRK = 999.990

RUN NO. 75/ 0 RN/L = 6.60 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
1.199	-10.800	-0.2670	.04800	.20720	-.02340	.01340	.15600	.05600	-.03660	.15860	-.38140
1.199	-8.640	-0.3780	.05100	.16390	-.01970	.01150	.15760	.05560	-.03580	.15830	-.33250
1.199	-6.590	-0.5910	.05490	.12100	-.01400	.00870	.15790	.05270	-.03500	.15860	-.33980
1.199	-4.470	-0.8120	.05950	.07670	-.00820	.00610	.16030	.05200	-.03920	.16100	-.36750
1.199	-2.340	-0.6270	.06170	.03170	-.00230	.00330	.16100	.05030	-.06020	.16180	-.37100
1.199	-.320	-0.6320	.06160	-.01240	-.00260	.00100	.16270	.05220	-.06120	.16350	-.37410
1.199	1.790	-0.6730	.06210	-.05690	.00820	-.00130	.16290	.05200	-.01520	.15380	-.39820
1.199	3.880	-0.7420	.06310	-.10370	.01480	-.00470	.16330	.05260	-.07210	.1530	-.43690
1.199	5.920	-0.7990	.06190	-.14990	.02100	-.00750	.16290	.05310	-.07720	.16390	-.47360
1.199	7.970	-0.8370	.06040	-.19480	.02640	-.00980	.16350	.05600	-.08160	.16480	-.49550
1.199	9.950	-0.9310	.06020	-.23520	.02980	-.01080	.16260	.05880	-.09090	.16380	-.53470
1.199	-.320	-0.6500	.06220	-.01460	.00300	.00090	.16210	.05170	-.08300	.16290	-.36650
1.199	GRADIENT	-.00151	.00037	-.02162	.00272	-.00126	.00038	.00014	-.00349	.00041	-.00819

RUN NO. 67/ 0 RN/L = 6.66 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
1.949	-10.720	-0.3710	-.00380	.21140	-.01430	.00630	.14000	.03460	-.03310	.14090	-.25030
1.949	-8.710	-0.3790	.00200	.16590	-.01080	.00680	.13970	.03340	-.03670	.14030	-.25650
1.949	-6.590	-0.3630	.00600	.11990	-.00710	.00500	.14040	.03240	-.03630	.14100	-.25800
1.949	-4.520	-0.3950	.00920	.07730	-.00440	.00350	.14390	.03170	-.03750	.14440	-.26020
1.949	-2.400	-0.4200	.01150	.03550	-.00150	.00190	.14440	.03140	-.04000	.14500	-.27640
1.949	-.320	-0.4410	.01200	-.00630	.00120	.00040	.14400	.03170	-.04210	.14680	-.29170
1.949	1.760	-0.4670	.01170	-.04810	.00420	-.00110	.14320	.03140	-.04470	.14580	-.30660
1.949	3.900	-0.4960	.01010	-.09140	.00690	-.00240	.14360	.03140	-.04770	.14450	-.33000
1.949	5.990	-0.5230	.00720	-.13550	.00970	-.00390	.14420	.03230	-.05030	.14490	-.34720
1.949	8.070	-0.5510	.00330	-.18270	.01330	-.00560	.14330	.03270	-.05310	.14400	-.36680
1.949	10.090	-0.5960	-.00110	-.23080	.01600	-.00690	.14180	.03300	-.05780	.14260	-.40320
1.949	-.320	-0.4440	.01210	-.00600	.00110	.00030	.13950	.03170	-.04250	.14010	-.30350
1.949	GRADIENT	-.00119	.00008	-.01995	.00135	-.00070	.00003	-.00003	-.00120	.00003	-.00819

TABULATED SOURCE DATA - NSFC TWT 374

(R07010) (18 JUL 73)

NSFC 574(0448) ORB 1398

REFERENCE DATA

SREF = 2890.0000 50.FT. XMRP = 838.7000 IN.
 LREF = 474.0000 IN. YMRP = .0000 IN.
 BREF = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

ALPHA = .000 ELEVTR = .000
 AIRLON = .000 BDFLAP = .000
 SPOBRK = 999.999

RUN NO. 45/ 0 RV/L = 4.05 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	-10.350	-.05370	-.02230	.19490	-.00950	.00470	.10990	.01710	-.03220	.11060	-.47220
2.990	-6.340	-.05270	-.02070	.15820	-.00930	.00460	.10960	.01670	-.03120	.11030	-.46430
2.990	-6.560	-.05140	-.01950	.12220	-.00740	.00390	.10870	.01650	-.03000	.10940	-.45690
2.990	-4.470	-.05180	-.01660	.08590	-.00350	.00320	.10800	.01630	-.03040	.10870	-.46380
2.990	-2.430	-.05320	-.01400	.04850	-.00320	.00220	.10940	.01590	-.03170	.11010	-.46990
2.990	-.340	-.05520	-.01310	.00920	-.00090	.00090	.10760	.01600	-.03380	.10830	-.49660
2.990	1.710	-.05640	-.01360	-.02970	.00220	-.00060	.10800	.01620	-.03500	.10870	-.50570
2.990	3.610	-.05790	-.01500	-.06940	.00340	-.00170	.10800	.01630	-.03640	.10870	-.51690
2.990	5.680	-.05820	-.01640	-.10610	.00730	-.00260	.10790	.01630	-.03670	.10870	-.52170
2.990	7.910	-.06080	-.01810	-.14310	.00850	-.00310	.10990	.01640	-.03930	.10980	-.54060
2.990	9.890	-.06590	-.01910	-.18050	.00970	-.00340	.10950	.01680	-.03680	.11040	-.57750
2.990	-.540	-.05490	-.01330	.02870	-.00070	.00070	.10770	.01670	-.03390	.10850	-.49300
GRADIENT		-.00074	.00017	-.01878	.00131	-.00061	-.00007	.00001	-.00074	-.00007	-.00706

RUN NO. 44/ 0 RV/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.999	-10.330	-.06140	-.02150	.16090	-.00620	.00460	.09310	.00360	-.04020	.09600	-.62740
4.999	-6.330	-.05790	-.02300	.12850	-.00480	.00350	.09280	.00360	-.03660	.09360	-.60530
4.999	-6.410	-.05680	-.02310	.09870	-.00330	.00270	.09180	.00360	-.03540	.09150	-.60160
4.999	-4.370	-.05570	-.02350	.06830	-.00230	.00210	.08930	.00350	-.03380	.09000	-.59830
4.999	-2.380	-.05650	-.02500	.03740	-.00090	.00100	.08710	.00360	-.03340	.08770	-.63180
4.999	-.340	-.05420	-.02570	.00770	.00100	.00030	.08500	.00360	-.03310	.08540	-.62170
4.999	1.670	-.05370	-.02500	-.02260	.00120	.00000	.08500	.00360	-.03250	.08570	-.61330
4.999	3.720	-.05630	-.02370	-.03480	.00290	-.00110	.08740	.00360	-.03720	.08820	-.64830
4.999	5.720	-.06220	-.02210	-.06430	.00470	-.00190	.08930	.00360	-.06110	.09010	-.67770
4.999	7.740	-.06570	-.02260	-.11670	.00470	-.00290	.09080	.00360	-.06450	.09170	-.70370
4.999	9.680	-.06810	-.02070	-.14500	.00610	-.00330	.09280	.00360	-.06690	.09370	-.71400
4.999	-.340	-.05740	-.02450	.00780	.00100	.00010	.08520	.00370	-.03630	.08590	-.69540
GRADIENT		-.00019	-.00002	-.01515	.00062	-.00037	-.00029	.00001	-.00019	-.00028	-.00404

DATE 28 SEP 73

TABULATED SOURCE DATA - NSFC TMT 574

(R07011) (18 JUL 73)

NSFC 574 (0A48) ORB 1398

REFERENCE DATA

SREF = 2090.0000 90.FT. XMRP = 830.7000 IN.
LREF = 474.0000 IN. YMRP = .0000 IN.
BREF = 936.7000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

ALPHA = 10.000 ELEVTR = .000
AILRON = .000 BDFLAP = .000
SPDRBK = 999.990

RUN NO. 76/ 0 RV/L = 4.00 GRADIENT INTERVAL = -5.00/ 5.00

MAC	BETA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.993	-10.480	.48070	.01360	.17370	-.01560	.02220	.01680	.03290	.47070	.09910	4.74920
.993	-8.490	.46900	.02010	.14190	-.01330	.02020	.01870	.03130	.45920	.09690	4.73560
.993	-6.440	.45790	.02430	.10150	-.00900	.01530	.01790	.02920	.44810	.09610	4.65930
.993	-4.480	.45670	.02720	.06300	-.00450	.01000	.01790	.02890	.44880	.09630	4.66080
.993	-2.370	.45490	.03080	.02630	-.00190	.00550	.01860	.02740	.44500	.09630	4.61760
.993	-.330	.45290	.03290	-.01290	.00160	.00160	.01890	.02740	.44250	.09620	4.59800
.993	1.690	.44870	.03080	-.04880	.00480	-.00210	.01920	.02760	.43680	.09550	4.57200
.993	3.740	.44350	.02780	-.06840	.00850	-.00650	.01790	.02910	.43390	.09360	4.63450
.993	5.770	.44670	.02790	-.12810	.01390	-.01120	.01820	.02910	.43700	.09450	4.62270
.993	7.790	.44800	.02330	-.17010	.01820	-.01560	.01760	.03200	.43930	.09410	4.65730
.993	9.740	.44730	.02200	-.20180	.01970	-.01800	.01840	.03580	.43750	.09470	4.61830
.993	GRADIENT	-.00190	.00005	-.01848	.00170	.00140	.01970	.02730	.43560	.09570	4.54900
					.00159	-.00200	.00005	.00211	-.00187	-.00031	-.00481

RUN NO. 77/ 0 RV/L = 6.25 GRADIENT INTERVAL = -5.00/ 5.00

MAC	BETA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.894	-10.590	.50010	-.00470	.20580	-.01360	.01390	.06390	.03500	.48090	.13150	3.17330
.894	-8.640	.49810	-.00130	.16810	-.01270	.01320	.06330	.03260	.47900	.13050	3.18120
.894	-6.590	.49120	.00370	.12240	-.00910	.01010	.06340	.03010	.47220	.14940	3.15900
.894	-4.480	.48240	.00490	.07740	-.00500	.00740	.06610	.03000	.46310	.15040	3.07760
.894	-2.410	.47320	.01050	.03320	-.00100	.00350	.06480	.02930	.45430	.14740	3.08030
.894	-.340	.47160	.01190	-.00800	.00180	.00040	.06460	.03050	.45270	.14700	3.07910
.894	1.710	.47220	.01200	-.05090	.00530	-.00290	.06600	.03010	.45300	.14840	3.05170
.894	3.800	.47790	.00910	-.09700	.01010	-.00750	.06590	.03170	.45870	.14940	3.06940
.894	5.870	.47310	.00630	-.14380	.01540	-.01120	.06530	.03320	.45610	.14830	3.07540
.894	7.920	.47590	.00190	-.18890	.01830	-.01310	.06590	.03690	.45670	.14900	3.06480
.894	9.920	.47650	.00090	-.22740	.01920	-.01320	.06690	.03960	.45720	.15010	3.04400
.894	GRADIENT	-.0048	.00052	-.02093	.00177	-.00175	.06460	.03100	-.00049	-.00005	-.00216

REFERENCE DATA

SRCP = 2000.0000 80. FT. XSRP = 836.7000 IN.
 LREF = 474.8000 IN. YSRP = .0000 IN.
 BRCP = 934.7000 IN. ZSRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

ALPHA = 10.000 ELEVTR = .000
 ALLRON = .000 BCFLAP = .000
 SPDRK = 999.990

RUN NO. 78/ 0 RN/L = 6.60 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CN	CLM	C	CYN	CBL	CA	CAB	CL	CD	L/D
1.195	-10.610	.60490	-.05130	.17500	-.01320	.01910	.14960	.06190	.56730	.25780	2.20070
1.195	-8.630	.60460	-.05120	.13990	-.01110	.01490	.15220	.06010	.56660	.26010	2.17640
1.195	-6.960	.60530	-.05180	.10160	-.00790	.01070	.15300	.05770	.56720	.26090	2.17360
1.195	-4.480	.60570	-.05190	.06260	-.00430	.00660	.15340	.05700	.56750	.26150	2.17040
1.195	-2.410	.60340	-.05120	.02340	-.00070	.00280	.15260	.05610	.56530	.26040	2.17030
1.195	-.340	.60700	-.05260	-.01850	.00360	.00360	.15370	.05690	.56890	.26110	2.17880
1.195	1.790	.60650	-.05260	-.05640	.00740	-.00300	.15330	.05970	.56820	.26150	2.17290
1.195	3.830	.60030	-.05210	-.09670	.01070	-.00580	.15440	.06030	.56200	.26140	2.14900
1.195	5.900	.59230	-.04770	-.13710	.01470	-.01000	.15690	.06460	.55470	.26230	2.11250
1.195	7.980	.58860	-.04500	-.17680	.01830	-.01330	.15950	.06580	.55040	.26320	2.11460
1.195	9.930	.58330	-.04260	-.21360	.02000	-.01730	.15240	.06490	.54570	.25620	2.12990
1.195	-3.40	.60420	-.05360	-.01820	.00380	.00340	.14990	.05500	.56670	.25780	2.19810
GRADIENT		-.00037	-.00010	-.01915	.00183	-.00147	.00012	.00049	-.00039	.00004	-.00166

RUN NO. 86/ 0 RN/L = 6.64 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
1.949	-10.720	.42160	-.04400	.17090	.00040	.01220	.12350	.03130	.39280	.19680	1.99740
1.949	-8.720	.41400	-.04100	.13300	.00030	.00970	.12470	.03090	.38320	.19630	1.96030
1.949	-6.620	.41020	-.03950	.09690	.00020	.00730	.12500	.03050	.38140	.19600	1.94540
1.949	-4.920	.40840	-.03900	.06110	.00030	.00490	.12560	.03030	.37950	.19620	1.93360
1.949	-2.410	.40910	-.03900	.02530	.00110	.00230	.12540	.02990	.38020	.19630	1.93720
1.949	-.340	.40680	-.03970	-.00980	.00170	-.00010	.12710	.02990	.37960	.19790	1.91790
1.949	1.790	.41040	-.03840	-.04460	.00200	-.00230	.12930	.03150	.38080	.20030	1.90070
1.949	3.860	.41070	-.03760	-.08040	.00210	-.00470	.13040	.03260	.38090	.20150	1.89030
1.949	5.970	.40960	-.03690	-.11670	.00210	-.00720	.12960	.03390	.37990	.20060	1.89370
1.949	8.060	.41060	-.03890	-.15380	.00090	-.00930	.12930	.03540	.38090	.20040	1.90010
1.949	10.080	.41100	-.04170	-.19350	.00130	-.01170	.12680	.03550	.38180	.19810	1.92740
1.949	-3.30	.39300	-.03810	-.01080	.00110	.00000	.12360	.03030	.36490	.19130	1.90680
GRADIENT		.00028	.00016	-.01667	.00020	-.00114	.00065	.00034	.00016	.00070	-.00591

TABULATED SOURCE DATA - MSFC TWT 574

DATE 28 SEP 75

MSFC 574 (0448) ORB 1398

(RAT011) (18 JUL 75)

REFERENCE DATA

B007 = 2090.0000 50. FT. XMRP = 838.7000 IN.
 L007 = 474.6000 IN. YMRP = .0000 IN.
 B007 = 958.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

ALPHA = 10.000 ELEVTR = .000
 AIRCON = .000 BDFLAP = .000
 SPDRK = 999.990

RUN NO. 42/ 0 RM/L = 4.05 GRADIENT INTERVAL = -5.00/ 5.00											
WACH	BETA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	-10.320	.25880	-.03100	.16270	-.00270	.01190	.09390	.01800	.23930	.13610	1.75780
2.990	-8.310	.25870	-.02850	.13200	-.00360	.01030	.09360	.01770	.23730	.13550	1.75110
2.990	-6.590	.25450	-.02560	.09900	-.00230	.00800	.09360	.01760	.23510	.13510	1.75980
2.990	-4.470	.23800	-.02100	.06520	-.00020	.00430	.09400	.01760	.23260	.13510	1.72120
2.990	-2.410	.24980	-.01630	.03450	.00000	.00280	.09280	.01740	.23060	.13530	1.72630
2.990	-.350	.24850	-.01870	.00470	.00050	.00060	.09230	.01720	.22940	.13260	1.72730
2.990	1.700	.24980	-.01790	-.02550	.00030	-.00120	.09230	.01710	.23060	.13320	1.73170
2.990	3.810	.24880	-.02010	-.05770	.00070	-.00370	.09270	.01770	.23040	.13340	1.72670
2.990	5.950	.24960	-.02310	-.09150	.00240	-.00650	.09320	.01780	.23050	.13390	1.72170
2.990	7.910	.24970	-.02820	-.12480	.00330	-.00890	.09320	.01800	.23270	.13430	1.73320
2.990	9.810	.25200	-.02850	-.15570	.00320	-.01070	.09320	.01710	.22920	.13240	1.73030
2.990	-3.50	.24820	-.01900	.00390	.00000	.00030	.09200	-.01003	-.00027	-.00018	.00025
GRADIENT											
		-.00030	.00010	-.01479	.00010	-.00097	-.00013				

RUN NO. 43/ 0 RM/L = 4.85 GRADIENT INTERVAL = -5.00/ 5.00											
WACH	BETA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.999	-10.320	.17510	-.02190	.13040	.00020	.01010	.07740	.00390	.13790	.10300	1.50440
4.999	-8.300	.17390	-.02120	.10470	-.00060	.00850	.07490	.00400	.15900	.10270	1.54820
4.999	-6.400	.17460	-.02010	.08040	-.00010	.00720	.07390	.00390	.15990	.10180	1.57020
4.999	-4.360	.17210	-.02010	.05480	-.00090	.00540	.07280	.00390	.15760	.10030	1.57150
4.999	-2.380	.17270	-.01850	.03070	.00030	.00230	.07220	.00380	.15640	.09990	1.56560
4.999	-.340	.17120	-.01410	.00440	.00000	.00120	.07190	.00380	.15690	.09930	1.57950
4.999	1.670	.17160	-.01760	-.01910	-.00070	-.00060	.07180	.00400	.15730	.09920	1.58350
4.999	3.710	.17170	-.01790	-.04600	-.00010	-.00320	.07190	.00400	.15740	.09940	1.58350
4.999	5.730	.17330	-.01880	-.07230	.00010	-.00500	.07260	.00420	.15890	.10030	1.58410
4.999	7.790	.16400	-.01870	-.09910	.00000	-.00650	.07350	.00430	.14950	.09980	1.50130
4.999	9.660	.16640	-.02040	-.12350	-.00150	-.00780	.07420	.00430	.15180	.10070	1.50730
4.999	-3.40	.17250	-.01740	.00570	.00020	.00120	.07170	.00400	.15820	.09930	1.59270
4.999			.00016	-.01246	.00003	-.00100	-.00011		-.00007	-.00012	.00017
GRADIENT											
		-.00009	.00010	-.01479	.00010	-.00097	-.00013				

DATE 26 SEP 73

(R87012) (18 JUL 73)

TABULATED SOURCE DATA - NSFC TWT 574

NSFC 574 (0A48) ORB 1398

PARAMETRIC DATA

ALPHA = 20.000 ELEVTR = .000
 AIRCON = .000 BDFLAP = .000
 SPDRK = 999.999

REFERENCE DATA

ORBIT = 2090.0000 SE-FT. YMRP = 836.7000 IN.
 LREF = 474.8000 IN. YMRP = .0000 IN.
 ORBIT = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

RUN NO. 69/ 0 RN/L = 4.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.999	-10.410	1.13080	-.02570	.17650	-.01870	.02280	.01810	.04210	1.05110	.41740	2.51800
.999	-8.490	1.13050	-.02250	.13700	-.01470	.01690	.01660	.04160	1.04980	.41970	2.50990
.999	-6.490	1.12020	-.01950	.09650	-.00840	.00940	.02020	.03810	1.03970	.41750	2.48960
.999	-4.410	1.12500	-.01200	.05430	-.00290	.00160	.01770	.03890	1.04500	.41700	2.50560
.999	-2.370	1.11490	-.00490	.01060	.00010	.00050	.01570	.04370	1.03820	.41160	2.51750
.999	-.320	1.12020	-.00860	-.04030	.0044	.00030	.01520	.04260	1.04140	.41300	2.52110
.999	1.710	1.12250	-.01040	-.08820	.00970	-.00320	.01430	.04330	1.04360	.41300	2.52700
.999	3.770	1.10960	-.00460	-.13090	.01380	-.00660	.01570	.04510	1.03160	.40970	2.51780
.999	5.800	1.10400	-.00830	-.16960	.01800	-.01180	.01910	.05120	1.02490	.41070	2.49560
.999	7.830	1.10430	-.01630	-.20550	.02040	-.01520	.01880	.03200	1.02540	.41040	2.49860
.999	9.750	1.09430	-.02520	-.23700	.02130	-.01850	.01710	.04880	1.01070	.40500	2.50990
.999	-.320	1.12060	-.00770	-.04270	.00510	.00050	.01620	.04170	1.04140	.41410	2.51450
GRADIENT		-.00113	.00046	-.02295	.00210	-.00098	-.00026	.00059	-.00095	-.00065	.00166

RUN NO. 70/ 0 RN/L = 6.05 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.999	-10.410	1.07180	-.00390	.15250	.02870	.02320	.06620	.05640	.97270	.45460	2.13940
.999	-8.740	1.07770	-.01050	.11800	.02410	.01700	.06760	.05550	.97770	.45820	2.13380
.999	-6.620	1.08170	-.01050	.08390	.01740	.01260	.06950	.05530	.98080	.46130	2.12800
.999	-4.530	1.08700	-.01080	.04830	.01290	.00660	.07330	.05630	.98430	.46700	2.10760
.999	-2.420	1.08470	-.00870	.01560	.00770	.00140	.07370	.05760	.98210	.46640	2.10540
.999	-.340	1.08690	-.00970	-.02050	.00210	-.00330	.07570	.05870	.98330	.46910	2.09610
.999	1.750	1.08670	-.01060	-.06000	.00300	-.00810	.07620	.05770	.98250	.46900	2.09460
.999	3.880	1.08580	-.00970	-.09700	.00600	-.01320	.07250	.05670	.98330	.46560	2.11190
.999	5.960	1.07200	-.00520	-.13230	.01240	-.01830	.06700	.05490	.97280	.45520	2.13670
.999	8.070	1.06170	-.00350	-.16630	.01820	-.02400	.06570	.05320	.96660	.45110	2.14260
.999	10.030	1.05080	-.00280	-.20380	.02270	-.02640	.06280	.05530	.95480	.44330	2.15390
.999	-.340	1.08720	-.01000	-.02100	.00190	-.00350	.07770	.05730	.98300	.47120	2.08570
GRADIENT		-.00007	.00011	-.01745	-.00231	-.000234	.00003	.00004	-.00006	-.00001	-.00010

DATE 28 SEP 73

TABULATED SOURCE DATA - NSFC TWT 574

PAGE 17

NSFC 574(0448) CRB 1398

(R07012) (16 JUL 73)

REFERENCE DATA

SRF = 2690.0000 56.17. AMRP = 836.7000 IN.
 LREF = 474.6000 IN. YMRP = .0000 IN.
 BRP = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

ALPHA = 20.000 ELEVTR = .000
 ATLURON = .000 BDFLAP = .000
 SPDBRK = 999.990

RUN NO. 71/ 0 RN/L = 6.59 GRADIENT INTERVAL = -5.00/ 5.00

MACN	BETA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
1.196	-10.790	1.13370	-.09630	.14040	.02210	.01810	.13400	.06690	1.05840	.57210	1.85000
1.196	-8.770	1.20070	-.09790	.10260	.02000	.01160	.13390	.06550	1.06300	.57400	1.85170
1.196	-6.640	1.20060	-.10310	.06910	.01360	.00660	.13580	.06700	1.06980	.57890	1.84790
1.196	-4.540	1.21190	-.10370	.03480	.01170	.00440	.13970	.07020	1.07110	.58390	1.83440
1.196	-2.410	1.20650	-.10120	.00300	.00690	.00170	.14070	.06920	1.06760	.58350	1.82940
1.196	-.330	1.20770	-.10100	-.02930	.00270	-.00200	.14130	.06900	1.06640	.58370	1.82680
1.196	1.770	1.20770	-.10270	-.06260	-.00160	-.00350	.14170	.06960	1.06650	.58260	1.82560
1.196	3.920	1.21090	-.09910	-.09180	-.00740	-.00890	.13680	.07030	1.07060	.58210	1.83740
1.196	6.000	1.20720	-.09320	-.12330	-.01270	-.01270	.13490	.06880	1.06860	.57760	1.84980
1.196	8.090	1.19000	-.09320	-.16860	-.01260	-.01550	.13550	.07130	1.05270	.57120	1.84280
1.196	10.100	1.17390	-.08680	-.20750	-.01550	-.01950	.13420	.07070	1.03850	.56370	1.84220
1.196	-.320	1.20720	-.10060	-.03040	.00240	-.00220	.14080	.06890	1.06630	.58310	1.82840
GRADIENT		-.00013	.00011	-.01501	-.00222	-.00160	-.00004	.00003	-.00010	-.00010	.00011

RUN NO. 68/ 0 RN/L = 6.69 GRADIENT INTERVAL = -5.00/ 5.00

MACN	BETA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
1.950	-10.790	.89110	-.07090	.14790	.01730	.01690	.10300	.03460	.79030	.42440	1.86200
1.950	-8.780	.89030	-.07070	.10340	.01790	.01210	.10210	.03550	.78990	.42320	1.86830
1.950	-6.670	.89320	-.06740	.06460	.01710	.00770	.10680	.03550	.79070	.42900	1.84290
1.950	-4.590	.89510	-.06500	.03260	.01320	.00400	.10910	.03560	.78600	.42950	1.82980
1.950	-2.420	.88790	-.06310	.00670	.00770	.00130	.10970	.03530	.78480	.42960	1.82670
1.950	-.330	.87660	-.06410	-.01540	.00050	-.00130	.10790	.03480	.77510	.42330	1.83070
1.950	1.760	.87660	-.06310	-.03840	-.00620	-.00310	.10700	.03460	.77340	.42270	1.83410
1.950	3.920	.87960	-.06180	-.06440	-.01260	-.00610	.10670	.03350	.77850	.42300	1.84040
1.950	6.020	.88720	-.06660	-.10100	-.01560	-.00970	.10450	.03550	.78600	.42450	1.85120
1.950	8.110	.87830	-.07070	-.14150	-.01680	-.01330	.09970	.03520	.77970	.41650	1.87190
1.950	10.130	.87940	-.06870	-.18450	-.01660	-.01770	.09940	.03410	.78070	.41670	1.87330
1.950	-.330	.87440	-.06340	-.01680	.00020	-.00110	.10740	.03470	.77330	.42200	1.83220
GRADIENT		-.00143	.00040	-.01132	-.00310	-.00117	-.00042	-.00023	-.00115	-.00094	.00135

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TABULATED SOURCE DATA - NSFC TWT 574

PAGE 18

(R07012) (18 JUL 75)

NSFC 574 (0A48) ORB 1398

REFERENCE DATA

SREF = 2890.0000 58.47. XMRP = 836.7000 IN.
 LREF = 474.8000 IN. YMRP = .0000 IN.
 BREF = 536.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

ALPHA = 20.000 ELEVTR = .000
 AILRON = .000 BDFLAP = .000
 SPDBRK = 999.990

RUN NO. 46/ 0 RNVL = 4.05 GRADIENT INTERVAL = -5.00/ 5.00

NACH	BETA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	-10.440	.62810	-.04050	.13290	.00690	.01800	.08270	.01850	.55940	.29720	1.88200
2.990	-8.420	.62870	-.03930	.10290	.00780	.01460	.08210	.01860	.56120	.29730	1.88750
2.990	-6.470	.62890	-.03870	.07330	.00600	.01090	.08080	.01840	.56050	.29360	1.89610
2.990	-4.410	.62860	-.03590	.04310	.00560	.00710	.08100	.01830	.56070	.29390	1.89470
2.990	-2.360	.62810	-.03390	.01730	.00430	.00310	.08100	.01770	.55810	.29490	1.89220
2.990	-1.350	.62820	-.03450	-.00390	.00050	.00040	.07980	.01720	.55790	.29390	1.90100
2.990	1.690	.62840	-.03360	-.02470	-.00340	-.00220	.08010	.01730	.55870	.29420	1.89890
2.990	3.790	.62800	-.03610	-.05170	-.00550	-.00630	.08000	.01760	.55840	.29400	1.89950
2.990	5.790	.62800	-.03600	-.08110	-.00590	-.00760	.07990	.01810	.55050	.29310	1.89840
2.990	7.820	.62380	-.03680	-.11050	-.00760	-.01370	.08050	.01830	.55580	.29350	1.89340
2.990	9.660	.62390	-.03670	-.13970	-.00870	-.01700	.08020	.01710	.55660	.29440	1.99760
2.990	-3.950	.62630	-.03460	-.00340	.00030	.00030	.08020	.01710	.55660	.29440	1.99760
GRADIENT		-.00027	-.00001	-.01155	-.00147	-.00157	-.00015	-.00014	-.00021	-.00023	.00081

RUN NO. 47/ 0 RNVL = 4.86 GRADIENT INTERVAL = -5.00/ 5.00

NACH	BETA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.999	-10.330	.51160	-.02780	.10640	.01040	.01450	.07190	.00400	.45560	.24370	1.86910
4.999	-8.330	.51170	-.02770	.08340	.00780	.01230	.07030	.00420	.45620	.24220	1.88330
4.999	-6.410	.51370	-.02800	.06240	.00610	.00990	.06880	.00420	.45680	.24150	1.89890
4.999	-4.380	.50980	-.02600	.04150	.00400	.00700	.06760	.00420	.45530	.23900	1.90450
4.999	-2.360	.51330	-.02550	.01990	.00270	.00360	.06690	.00390	.46070	.24030	1.91750
4.999	-1.340	.51300	-.02450	-.00020	.00030	.00030	.06660	.00390	.45870	.23920	1.91750
4.999	1.670	.51920	-.02700	-.02310	-.00260	-.00290	.06580	.00390	.46100	.23900	1.92860
4.999	3.710	.51310	-.02670	-.04060	-.00390	-.00620	.06610	.00400	.45900	.23880	1.92180
4.999	5.710	.51570	-.02730	-.06290	-.00370	-.00880	.06670	.00390	.46120	.24020	1.91940
4.999	7.730	.51160	-.02860	-.08520	-.00370	-.00920	.06720	.00430	.45720	.23920	1.91080
4.999	9.650	.50980	-.02560	-.10530	-.01010	-.01350	.06820	.00420	.45490	.23950	1.89940
4.999	-3.40	.51480	-.02630	-.00020	.00010	.00010	.06640	.00410	.46050	.23970	1.92120
GRADIENT		.00032	-.00007	-.01027	-.00105	-.00163	-.00021	-.00003	.00038	-.00008	.00226

TABULATED SOURCE DATA - NSFC TWT 574

MSFC 574 (OL48); CRB 139B

REFERENCE DATA

WARP =	2693.0000 SQ.FT.	WARP =	838.7000 IN.
LWC =	474.8000 IN.	WARP =	.0000 IN.
WARP =	936.7000 IN.	WARP =	.0000 IN.
SCALE =	.0040		

PARAMETRIC DATA

ALPHA =	30.000	ELEVTR =	.000
AILRON =	.000	BOFLAP =	.000
SPDRBK =	999.990		

TEST NO.	79/ 0	BN/1 =	4.80	GRADIENT INTERVAL =	-5.02/ 5.00
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MAOH	BETA	CN	CLM	CY	CTN	CBL	CA	CAB	CL	CD	L/D
.594	-10.460	1.18210	.09600	.13710	.00660	.01960	.03010	.07470	.99790	.63430	1.57500
.594	-8.520	1.16600	.10200	.09920	.00940	.01550	.03120	.07240	.98560	.62690	1.56690
.594	-6.470	1.16070	.10300	.07420	.00750	.00930	.03530	.07370	.97690	.62770	1.55620
.594	-4.480	1.15520	.10300	.04380	.00400	.00460	.04270	.07680	.96590	.62940	1.55450
.594	-2.360	1.15110	.10210	.00720	.00270	.00140	.04530	.07710	.96370	.63110	1.52690
.594		1.14770	.10250	-.02600	.00120	-.00180	.04590	.07960	.96070	.62940	1.52620
.594	1.700	1.14420	.10270	-.06270	-.00090	-.00050	.04420	.07980	.95840	.62650	1.52970
.594	3.790	1.15620	.10130	-.10140	-.00170	-.00500	.03750	.07930	.97210	.62710	1.59020
.594	5.810	1.15260	.09950	-.12900	-.00620	-.01340	.03190	.07680	.97190	.62040	1.56830
.594	7.840	1.15190	.09940	-.15500	-.01030	-.01770	.02950	.07760	.97420	.61810	1.57530
.594	9.770	1.16400	.09910	-.18660	-.01590	-.02060	.02790	.07630	.96390	.62230	1.58060
.594		1.19000	.10410	-.02600	.00100	.00210	.04310	.06070	.96290	.63030	1.52760
.594		1.00000	-.00017	-.01756	-.00071	-.00164	-.00056	.00037	.00035	-.00045	.00166

RUN NO. 49; Q RVL = 4.10 GRADIENT INTERVAL = -5.02/ 5.03

PARAM	BETA	GN	CLM	CT	CYN	CBL	CA	CAB	CL	CD	L/N
2.990	-10.490	1.05390	-0.06100	.01800	.02220	.07760	.02120	.06390	.60640	1.42000	
2.990	-8.540	1.05660	-0.06200	.06130	.01750	.07630	.07630	.60690	.60950	1.42520	
2.990	-8.480	1.06090	-0.06250	.05440	.01240	.07440	.01970	.87120	.60790	1.42990	
2.990	-8.430	1.06070	-0.06210	.02930	.00740	.07240	.01900	.87240	.60760	1.43580	
2.990	-2.390	1.06320	-0.06200	.00670	.00320	.07070	.01890	.87540	.60750	1.44090	
2.990	-3.30	1.06460	-0.06200	.00910	.00090	.07190	.01820	.87610	.60940	1.43770	
2.990	1.660	1.06320	-0.06120	.02480	.00350	.07180	.01830	.87480	.60840	1.43770	
2.990	3.790	1.06060	-0.06140	.04720	.00570	.07160	.01880	.87270	.60680	1.43600	
2.990	5.770	1.05730	-0.06120	.07100	.01280	.07260	.01930	.86940	.60600	1.43430	
2.990	7.820	1.03450	-0.06280	.09910	.01470	.07320	.01940	.86570	.60510	1.43230	
2.990	9.740	1.04930	-0.06090	.12440	.01700	.07420	.01920	.86180	.60320	1.42860	
2.990	-3.30	1.06470	-0.06150	.00670	.00020	.07220	.01880	.87590	.60960	1.43690	
GRADIENT		.00001	.00011	.00090	.00178	.00002	.00003	.00000	.00003	.00006	

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NSFC 574(0448) ORB 1398

(R07013) (10 JUL 73)

REFERENCE DATA

3REF = 2000.0000 20.17. XMRP = 836.7000 IN.
 LREF = 474.8000 IN. YMRP = .0000 IN.
 BREF = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

ALPHA = 30.0000 ELEVTR = .000
 AILRON = .000 BDFLAF = .000
 SPDRK = 999.990

RUN NO. 48/ 0 RVAL = 5.12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.926	-10.350	.93180	-.04660	.06460	.01470	.01930	.07070	.00430	.76770	.53270	1.44100
4.926	-8.440	.93690	-.04740	.06490	.01150	.01570	.06950	.00440	.77280	.53430	1.44610
4.926	-6.400	.93860	-.04610	.06600	.00820	.01160	.06720	.00440	.77530	.53320	1.45410
4.926	-4.360	.94290	-.04730	.02710	.00550	.00790	.06610	.00420	.77360	.53450	1.45690
4.926	-2.360	.94510	-.04530	.00960	.00340	.00360	.06490	.00430	.78200	.53460	1.46260
4.926	-.340	.94190	-.04660	-.00650	-.00070	-.00010	.06360	.00430	.78000	.53180	1.46650
4.926	1.670	.93640	-.04570	-.02330	-.00430	-.00360	.06330	.00450	.77710	.52970	1.46690
4.926	3.710	.94250	-.04510	-.04150	-.00680	-.00800	.06440	.00430	.78010	.53260	1.46400
4.926	5.710	.93990	-.04710	-.06300	-.00940	-.01230	.06510	.00440	.77720	.53190	1.46120
4.926	7.730	.93760	-.05010	-.08110	-.01250	-.01620	.06680	.00440	.77470	.53230	1.45520
4.926	9.650	.93240	-.04660	-.10060	-.01530	-.01960	.06730	.00440	.76990	.53010	1.45230
4.926	-.340	.94290	-.04510	-.00360	-.00020	.00000	.06410	.00440	.78050	.53280	1.46490
GRADIENT	-.00037	-.00020	.00020	-.00642	-.00160	-.00194	-.00025	.00002	-.00019	-.00041	.00076

NSFC 574 (M48) ORB 1398

(R87014) (18 JUL 73)

REFERENCE DATA

SREF = 2690.0000 96.77. XREF = 636.7000 IN.
 LREF = 474.8000 IN. YREF = .0000 IN.
 SREF = 936.7000 IN. ZREF = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

ALPHA = 40.000 ELEVTR = .000
 AIRKN = .000 BDFLAP = .000
 SPDRK = 999.990

RUN NO. 50/ 0 RIN/L = 4.96 GRADIENT INTERVAL = -5.00/ 5.00

NACH	BETA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.959	-10.340	1.39910	-.08250	.06730	.01710	.02410	.06820	.00340	1.01710	.96310	1.05610
4.959	-8.440	1.40970	-.06350	.05130	.01410	.02010	.06750	.00350	1.02550	.96950	1.05770
4.959	-6.400	1.41780	-.06430	.03200	.01100	.01530	.06800	.00350	1.03260	.97380	1.06040
4.959	-4.360	1.42420	-.06540	.01440	.00790	.01020	.06410	.00350	1.03860	.97660	1.06350
4.959	-2.360	1.42530	-.06410	.00030	.00430	.00490	.06270	.00330	1.04030	.97630	1.06580
4.959	-.340	1.42530	-.06570	-.01240	-.00040	.00030	.06280	.00320	1.04030	.97630	1.06550
4.959	1.870	1.42510	-.06290	-.02450	-.00470	-.00420	.06180	.00340	1.04070	.97540	1.06690
4.959	3.710	1.42180	-.06480	-.04190	-.00840	-.00930	.06180	.00350	1.03830	.97320	1.06680
4.959	5.710	1.41700	-.06460	-.05990	-.01150	-.01460	.06150	.00320	1.03490	.96990	1.06690
4.959	7.730	1.40720	-.06420	-.07720	-.01570	-.01890	.06290	.00350	1.02680	.96450	1.06440
4.959	9.690	1.39510	-.06150	-.09330	-.01770	-.02320	.06400	.00350	1.01690	.95730	1.06220
4.959	-3.340	1.42240	-.06460	-.01300	-.00060	.00010	.06200	.00330	1.03860	.97380	1.06650
	GRADIENT	-.00025	.00012	-.00680	-.00206	-.00236	-.00027	.00000	-.00001	-.00039	.00039

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TABULATED SOURCE DATA - NSFC TWT 574

NSFC 574 (0448) ORB 1398

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(R07015) (10 JUL 73)

REFERENCE DATA

SKET = 2090.0000 SQ.FT. YMRP = 838.7000 IN.
 LREF = 474.8000 IN. YMRP = .0000 IN.
 BREF = 938.7000 IN. Z-RP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = 15.000
 AIRLON = .000 BDFLAP = 13.750
 SFBDRK = 999.990

RUN NO. 95/ 0 RN/L = 4.93 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.594	.32500	-.15860	-.01700	.00450	-.00070	.09190	.03820	.32350	.09010	3.38900
.594	.41880	-.16030	-.01840	.00470	-.00070	.08930	.03850	.41580	.10150	4.05550
.594	.51960	-.16350	-.02140	.00480	-.00070	.08140	.03740	.51310	.11550	4.43980
.594	.63310	-.16610	-.02160	.00480	-.00160	.07170	.03520	.62240	.13630	4.56670
.594	.74590	-.17000	-.02740	.00510	-.00110	.06150	.03560	.73020	.16450	4.43690
.594	.86170	-.18040	-.02620	.00490	-.00110	.05590	.03660	.85820	.20960	4.09300
.594	1.00320	-.18720	-.03000	.00560	-.00020	.05310	.03910	.96820	.26900	3.59830
.594	1.03740	-.17250	-.03140	.00630	-.00020	.07080	.04190	1.00720	.32950	3.05690
.594	1.4280	-.18870	-.03340	.00670	-.00150	.07250	.04530	1.13790	.41070	2.77020
.594	1.55780	-.19090	-.03480	.00660	-.00280	.07050	.05040	1.26520	.49790	2.54060
.594	1.7060	-.19440	-.03520	.00660	-.00310	.06940	.05820	1.35300	.58040	2.33080
.594	1.86080	-.17970	-.02570	.00450	-.00020	.05540	.03760	.85740	.20900	4.10140
.594	.04807	-.06115	-.00108	.00002	-.00020	-.00258	-.00020	.04655	.00821	.20753

RUN NO. 96/ 0 RN/L = 6.25 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.699	.30780	-.17400	-.02580	.00670	-.00150	.11320	.04170	.30810	.11200	2.73010
.699	.43420	-.19140	-.02880	.00690	-.00090	.11410	.04060	.43040	.12800	3.36230
.699	.57580	-.21220	-.03150	.00720	-.00020	.11450	.04030	.56820	.15500	3.62300
.699	.67330	-.21490	-.02830	.00550	-.00010	.11710	.04140	.65680	.18900	3.47400
.699	.77460	-.21670	-.03090	.00580	-.00000	.11690	.04330	.74930	.22830	3.28110
.699	.88230	-.22460	-.02720	.00480	-.00020	.12140	.04540	.84530	.28050	3.01330
.699	1.01740	-.23820	-.02660	.00410	-.00130	.12650	.04580	.96470	.34720	2.77840
.699	1.14840	-.25090	-.02800	.00520	-.00090	.13230	.05360	1.07560	.42370	2.53850
.699	1.23690	-.23840	-.03380	.00620	-.00130	.13190	.06090	1.14370	.48920	2.33760
.699	1.31690	-.22410	-.04020	.00600	-.00030	.13530	.07100	1.19900	.56120	2.13650
.699	1.36470	-.18440	-.02870	.00240	-.00470	.13920	.08080	1.22170	.62400	1.95790
.699	.06297	-.06297	-.02510	.00460	-.00020	.12100	.04430	.85580	.28220	3.03170
.699	.06297	-.06297	-.00134	.00002	.00031	.00000	-.00033	.06060	.01012	.21090

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TABULATED SOURCE DATA - NSFC TWT 574

NSFC 574 (0448) ORB 1398

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(R87015) (10 JUL 73)

REFERENCE DATA

SREF = 2690.0000 90.00 FT. XMRP = 838.7000 IN.
 LREF = 474.8000 IN. YMRP = .0000 IN.
 BREF = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = 15.000
 AILRON = .000 BDFLAP = 13.750
 SPDRK = 999.990

RUN NO. 97/0 RV/L = 6.65 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
1.196	-2.20	.23970	-.13490	-.01810	.00460	-.00060	.21110	.06500	.23950	.21010	1.13980
1.196	1.860	.37510	-.16680	-.01990	.00490	-.00060	.21300	.06390	.36800	.22510	1.63450
1.196	4.100	.51480	-.19710	-.02140	.00310	-.00070	.21330	.06410	.49820	.24960	1.99580
1.196	6.350	.69440	-.22380	-.02370	.00300	-.00090	.21250	.06470	.62690	.28330	2.21290
1.196	8.570	.79120	-.24030	-.02540	.00340	-.00010	.21090	.06400	.73090	.32630	2.29940
1.196	10.810	.92810	-.25420	-.02770	.00370	.00000	.21120	.06800	.87200	.30180	2.28460
1.196	13.090	1.05360	-.26420	-.02820	.00320	-.00110	.21160	.06760	.97850	.44430	2.20220
1.196	15.290	1.17300	-.27130	-.02950	.00480	-.00200	.21440	.07090	1.07490	.51820	2.08230
1.196	17.490	1.27670	-.27150	-.02980	.00440	-.00250	.21620	.07410	1.13260	.59010	1.93310
1.196	19.670	1.37190	-.26610	-.03190	.00430	-.00200	.21700	.07980	1.21870	.66850	1.82650
1.196	21.750	1.45970	-.25740	-.03180	.00380	-.00210	.21590	.08300	1.27370	.74130	1.72030
1.196	23.810	1.52490	-.25240	-.02700	.00340	-.00320	.21030	.06720	.86900	.30020	2.28340
1.196	25.869	1.6389	-.01439	-.00076	.00012	-.00002	.00050	-.00020	.05966	.00917	.19768

GRADIENT

RUN NO. 60/0 RV/L = 6.40 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
1.961	-4.60	.06230	-.06900	-.01540	.00290	-.00060	.16290	.03220	.06370	.16240	.39210
1.961	1.600	.15180	-.08340	-.01630	.00280	-.00070	.16410	.03340	.14710	.16830	.67420
1.961	3.780	.24680	-.09900	-.01700	.00230	-.00080	.16540	.03460	.23530	.18140	1.29720
1.961	5.940	.32800	-.11020	-.01780	.00310	-.00100	.16320	.03500	.30930	.19630	1.57600
1.961	8.120	.41090	-.12320	-.01800	.00320	-.00120	.15970	.03390	.38420	.21620	1.77690
1.961	10.290	.50430	-.13040	-.01890	.00280	-.00130	.15540	.02990	.46840	.24300	1.92720
1.961	12.440	.58620	-.13810	-.01960	.00290	-.00160	.14970	.02900	.54020	.27260	1.98150
1.961	14.660	.69130	-.14670	-.02000	.00240	-.00190	.14940	.02910	.63090	.31970	1.97310
1.961	16.870	.79740	-.16710	-.02030	.00200	-.00190	.15180	.03020	.71890	.37680	1.90790
1.961	19.080	.90250	-.17500	-.01980	.00150	-.00190	.15360	.03320	.80270	.44030	1.82290
1.961	21.200	1.01420	-.18750	-.01950	.00120	-.00210	.15730	.03460	.88870	.51340	1.73080
1.961	23.370	1.09850	-.18330	-.01900	.00290	-.00140	.15120	.02810	.96330	.23780	1.94920
1.961	25.540	1.18351	-.00718	-.00038	-.00014	-.00005	.00059	.00057	.04047	.00450	.21328

GRADIENT

DATE 28 SEP 73

(R07015) (16 JUL 73)

TABULATED SOURCE DATA - NSFC TWT 574

NSFC 574(0A48) ORB 1398

PARAMETRIC DATA

BETA = .000 ELEVTR = 15.000
 AIRLON = .000 BDFLAP = 13.750
 SFCBRK = 999.990

REFERENCE DATA

REF = 2000.0000 20.0 FT. ZMRP = 836.7000 IN.
 LINEF = 474.8000 IN. YMRP = .0000 IN.
 BREF = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

RUN NO. 22/ 0 RNL = 4.08 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	-1.320	-0.1110	-0.04890	.00000	.00100	.00000	.11890	.01710	-.01000	.11760	-.08570
2.990	1.430	0.0670	-0.05220	-.00110	.00070	.00000	.11870	.01720	.04370	.11790	.37130
2.990	3.470	0.1060	-0.06330	-.00110	.00080	.00000	.11320	.01710	.09860	.12140	.81230
2.990	5.960	0.17330	-0.06030	-.00080	.00110	.00070	.11280	.01750	.16180	.12900	1.25190
2.990	7.630	0.24330	-0.06730	-.00100	.00090	.00000	.11130	.01730	.22630	.14260	1.56650
2.990	9.700	0.31240	-0.07470	-.00230	.00080	-.00020	.10940	.01700	.28990	.18050	1.80330
2.990	11.780	0.38610	-0.08230	-.00330	.00090	-.00030	.11070	.01690	.35740	.18760	1.90430
2.990	13.860	0.46590	-0.09040	-.00450	.00070	-.00020	.11090	.01710	.42570	.21940	1.93980
2.990	15.940	0.54330	-0.09890	-.00560	.00100	-.00040	.11140	.01710	.49370	.25700	1.92040
2.990	18.020	0.63060	-0.11170	-.00480	.00100	-.00040	.11420	.01740	.56430	.30370	1.85780
2.990	20.000	0.71620	-0.12230	-.00600	.00060	-.00040	.11610	.01740	.63320	.35420	1.78780
2.990	9.700	0.31630	-0.07320	-.00280	.00060	-.00040	.11000	.01690	.29340	.16190	1.81220
2.990	GRADIENT	0.0930	-0.0235	-.00027	-.00005	.00000	-.00043	-.00000	.02722	.00111	.22499

RUN NO. 23/ 0 RNL = 4.97 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.959	-1.490	-0.03350	-0.04490	-.00250	.00110	-.00040	.08960	.00380	-.03470	.09010	-.36540
4.959	1.400	0.06300	-0.04680	-.00190	.00110	-.00040	.08760	.00390	.00410	.08770	.04740
4.959	3.430	0.10350	-0.04820	-.00280	.00090	-.00040	.08690	.00400	.04320	.08970	.50370
4.959	5.460	0.14970	-0.04940	-.00370	.00070	-.00070	.08430	.00400	.09120	.09350	.97320
4.959	7.500	0.19640	-0.05610	-.00240	.00080	-.00070	.08360	.00390	.15410	.10460	1.47230
4.959	9.530	0.21770	-0.06110	-.00210	.00120	-.00060	.08450	.00400	.20070	.11940	1.68100
4.959	11.570	0.28300	-0.06780	-.00190	.00040	-.00110	.08480	.00410	.26020	.13990	1.86110
4.959	13.640	0.35370	-0.07540	-.00320	.00080	-.00100	.08610	.00400	.32540	.16760	1.94100
4.959	15.680	0.42860	-0.08560	-.00340	.00120	-.00130	.08810	.00410	.45910	.24110	1.90370
4.959	17.710	0.51670	-0.09610	-.00340	.00110	-.00140	.09200	.00410	.52320	.28440	1.83940
4.959	19.630	0.58640	-0.10530	-.00420	.00090	-.00090	.08360	.00410	.60450	.11920	1.71630
4.959	9.540	0.22150	-0.05940	-.00210	.00060	-.00090	.08360	.00405	.02036	-.00009	.22679
4.959	GRADIENT	0.02194	-0.00084	-.00008	-.00015	-.00000	-.00073	-.00005			

DATE 28 SEP 73

TABULATED SOURCE DATA - MSFC TWT 574

PAGE 25

(R07016) (16 JUL 73)

MSFC 574 (0A48) ORB 1398

PARAMETRIC DATA

BETA = .000 ELEVTR = 15.000
 AILRON = .000 BDFLAP = 13.750
 SPDRK = 999.990

REFERENCE DATA

SRIF = 2090.0000 94. FT. XPRP = 836.7050 IN.
 LREF = 474.8000 IN. YMRP = .0000 IN.
 BRIF = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

RUN NO. 23/ 0 RN/L = 4.12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	20.630	.72160	-.12300	-.00930	.00060	-.00130	.11660	.01750	.63420	.36340	1.74910
2.990	22.590	.80600	-.13470	-.00970	.00030	-.00120	.11750	.01750	.69900	.41800	1.67200
2.990	24.690	.89860	-.14570	-.01030	.00050	-.00120	.11690	.01700	.76600	.48340	1.58620
2.990	26.800	.99440	-.15710	-.01130	.00060	-.00140	.12090	.01730	.83500	.55640	1.49720
2.990	28.880	1.09290	-.16930	-.01310	.00110	-.00140	.12280	.01770	.89760	.63540	1.41260
2.990	30.980	1.19130	-.18070	-.01340	.00120	-.00160	.12350	.01810	.95780	.71920	1.33170
2.990	33.080	1.29380	-.19310	-.01610	.00190	-.00170	.12860	.01870	1.01380	.81400	1.24540
2.990	35.180	1.39710	-.20650	-.01840	.00260	-.00260	.12770	.01910	1.06820	.90950	1.17450
2.990	37.280	1.50360	-.22340	-.02040	.00280	-.00300	.12920	.01910	1.11790	1.01380	1.10270
2.990	39.390	1.60850	-.23690	-.02190	.00370	-.00340	.13060	.01910	1.16020	1.12180	1.03420
2.990	41.500	1.71500	-.25840	-.02190	.00320	-.00360	.13250	.01920	1.19800	1.23340	.97210
2.990	43.600	1.82300	-.27980	-.01470	.00130	-.00150	.12410	.01820	.96170	.72240	1.33110
2.990	45.700	1.93200	-.30130	-.00669	.00017	-.00012	.00080	.00012	.02746	.04197	-.03776

GRADIENT

RUN NO. 24/ 0 RN/L = 5.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.959	20.260	.60760	-.11060	-.00720	.00060	-.00180	.09520	.00370	.53700	.29980	1.79140
4.959	22.210	.69560	-.12020	-.00620	.00080	-.00130	.09630	.00370	.60670	.35400	1.71370
4.959	24.270	.78630	-.13350	-.00790	.00080	-.00160	.10120	.00380	.67530	.41560	1.62490
4.959	26.340	.88280	-.14780	-.00970	.00120	-.00200	.10930	.00380	.74430	.48620	1.53070
4.959	28.380	.98400	-.16200	-.01020	.00090	-.00190	.10930	.00390	.81370	.56400	1.44280
4.959	30.440	1.08570	-.17240	-.01070	.00120	-.00200	.11300	.00410	.87870	.64770	1.35860
4.959	32.500	1.18960	-.18570	-.01400	.00160	-.00230	.11590	.00410	.94090	.73710	1.27640
4.959	34.560	1.29290	-.19950	-.01460	.00190	-.00250	.11930	.00400	.99690	.83190	1.19630
4.959	36.620	1.39630	-.21420	-.01520	.00200	-.00240	.12290	.00410	1.04720	.93170	1.12390
4.959	38.690	1.50280	-.22770	-.01920	.00130	-.00250	.12590	.00410	1.09420	1.03770	1.05440
4.959	40.640	1.59930	-.24060	-.01830	.00150	-.00260	.12910	.00400	1.12930	1.13980	.99070
4.959	42.440	1.68600	-.25390	-.01280	.00090	-.00190	.11200	.00400	.88120	.64790	1.35990
4.959	44.190	1.76800	-.26640	-.00663	.00016	-.00016	.00164	.00012	.02954	.04147	-.03981

GRADIENT

TABULATED SOURCE DATA - NSFC TWT 574

(R07017) (10 JUL 73)

NSFC 574(OA48) ORB 1398

PARAMETRIC DATA

BETA = .000 ELEVTR = 15.000
 AIRLON = .000 BDFLAP = 15.750
 SPDRK = 999.999

REFERENCE DATA

REF = 2690.0000 56.57. XGRP = 836.7000 IN.
 LREF = 474.8000 IN. YGRP = .0000 IN.
 SREF = 936.7000 IN. ZGRP = .0000 IN.
 SCALE = .0040

RUN NO. 53/ 0 RW/L = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.929	40.360	1.57260	-2.5010	-0.0420	-0.00420	-0.01080	.13360	.00310	1.11120	1.12110	.99120
4.929	42.300	1.67000	-2.6300	-0.0490	-0.00310	-0.01860	.13710	.00320	1.14260	1.22540	.93250
4.929	44.350	1.76400	-2.7590	-0.0420	-0.00200	-0.01600	.14260	.00340	1.18290	1.35630	.87210
4.929	46.370	1.90850	-3.1770	-0.04510	-0.00250	-0.01420	.14570	.00340	1.21170	1.48270	.81720
4.929	48.430	2.04560	-3.5470	-0.0400	-0.00440	-0.00660	.14750	.00350	1.24680	1.62840	.76560
4.929	50.470	2.13220	-3.8960	-0.0320	-0.00470	-0.00430	.14510	.00340	1.24490	1.75710	.71660
4.929	52.510	2.19090	-3.2480	-0.0320	-0.00350	-0.00390	.14220	.00350	1.22030	1.62510	.66460
4.929	54.570	2.23160	-2.9560	-0.0350	-0.00340	-0.00460	.13990	.00330	1.17950	1.89950	.62090
4.929	56.600	2.26240	-2.6450	-0.04250	-0.00360	-0.00560	.13770	.00320	1.13040	1.96460	.57550
4.929	58.600	2.28370	-2.3680	-0.0420	-0.00390	-0.00660	.13490	.00310	1.07450	2.01970	.53270
4.929	60.520	2.30680	-2.1620	-0.04260	-0.00450	-0.00700	.13200	.00310	1.02020	2.07350	.49200
4.929	50.460	2.13470	-3.4790	-0.04260	-0.00390	-0.00430	.14530	.00330	1.24630	1.73920	.71650
4.929	50.460	.03731	.00190	-0.00002	-0.00024	.00043	-.00022	-.00001	-.00436	.04639	-.02455

GRADIENT

DATE 28 SEP 73

(R87918) (17 SEP 73)

TABULATED SOURCE DATA - NSFC TWT 574
NSFC 574 (0A48) CRB 1398

PARAMETRIC DATA

BETA = .000 ELEVTR = -20.000
AILRON = .000 BOFLAP = .000
SPDRK = 999.990

REFERENCE DATA

SRCT = 2990.0000 94. FT. XMRP = 838.7000 IN.
LREF = 474.8000 IN. YMRP = .0000 IN.
SRCT = 938.7000 IN. ZMRP = .0000 IN.
SCALE = .0040

RUN NO. 100/ 0 RV/L = 4.93 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.994	-.020	-.26170	.13920	-.03770	.00150	.00180	.08300	.02780	-.26080	.08990	-3.03800
.994	1.360	-.17080	.13860	-.00940	.00150	.00150	.06070	.02690	-.17200	.07660	-2.24510
.994	3.470	-.06860	.13700	-.01090	.00180	.00200	.07680	.02710	-.07430	.07240	-1.02560
.994	5.560	.03180	.13770	-.01400	.00150	.00150	.06870	.02790	.02480	.07140	.34710
.994	7.660	.13770	.13650	-.01680	.00220	.00060	.05740	.02820	.12880	.07530	1.71030
.994	9.780	.25210	.13480	-.01790	.00240	.00080	.04870	.02900	.24020	.09080	2.64390
.994	11.860	.36210	.13200	-.01420	.00110	.00050	.04550	.02910	.34500	.11900	2.89830
.994	14.000	.48900	.13230	-.01960	.00170	-.00100	.04470	.03120	.46370	.16170	2.86640
.994	16.090	.57910	.13220	-.02710	.00330	-.00050	.04890	.03450	.54200	.20700	2.61730
.994	18.170	.70120	.12900	-.03030	.00360	-.00150	.04370	.03830	.65250	.26030	2.50670
.994	20.200	.83270	.12260	-.03180	.00430	-.00230	.03880	.04260	.78680	.35090	2.37730
.994	9.770	.25310	.13550	-.01630	.00210	.00080	.04840	.02840	.24120	.09070	2.65920
GRADIENT		.04893	-.00054	-.00078	.00007	.00005	-.00152	-.00017	.04561	-.00329	.49248

RUN NO. 99/ 0 RV/L = 6.23 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.895	-.080	-.26980	.16510	-.01560	.00370	.00170	.10550	.03210	-.26830	.10670	-2.46690
.895	1.360	-.14370	.15080	-.01670	.00340	.00180	.10140	.03260	-.14610	.09790	-1.49210
.895	3.800	.00860	.12590	-.01660	.00360	.00180	.09860	.03130	.00240	.09900	.02430
.895	5.800	.15530	.10340	-.02150	.00360	.00070	.09290	.03160	.14510	.10810	1.34150
.895	8.000	.28600	.08890	-.02300	.00360	.00070	.08820	.03210	.27100	.12720	2.13010
.895	10.190	.42120	.07760	-.02630	.00430	.00130	.09110	.03330	.39840	.16420	2.42670
.895	12.370	.55990	.06750	-.02740	.00400	-.00030	.08820	.03460	.50840	.20180	2.51890
.895	14.560	.65180	.06760	-.02980	.00490	-.00030	.09060	.03780	.60810	.25150	2.41710
.895	16.720	.76560	.06370	-.03140	.00380	-.00230	.09160	.04140	.70680	.30810	2.29360
.895	18.910	.87760	.07130	-.02850	.00200	-.00250	.09780	.04670	.79840	.37710	2.11710
.895	20.920	.94190	.09440	-.03090	.00150	-.00410	.09880	.05290	.84450	.42070	1.96980
.895	10.190	.41910	.07860	-.02460	.00380	-.00100	.08930	.03290	.39670	.16210	2.44700
GRADIENT		.06469	-.00916	-.00070	-.00002	.00002	-.00160	-.00019	.06315	-.00225	.58193

DATE 26 SEP 75

TABULATED SOURCE DATA - NSFC TWT 574

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NSFC 574 (0448) ORB 1398

(R07016) (17 SEP 75)

REFERENCE DATA

SRZF = 2480.0000 96.47. XMRP = 850.7000 IN.
 LREF = 474.8000 IN. YMRP = .0000 IN.
 BRZF = 956.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = -20.000
 AIRLON = .000 BDFLAP = .000
 SPORBK = 999.990

RUN NO. 96/ 0 RV/L = 6.65 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	CH	CLM	CT	CYN	CYL	CA	CAB	CL	CD	L/D
1.958	-1.540	-1.0230	.14810	-.01790	.00470	.00060	.20370	.06180	-.16040	.20330	-.78130
1.959	1.590	-.02290	.11610	-.01950	.00310	-.00080	.20330	.06410	-.02840	.20280	-.14020
1.959	3.600	.12300	.06330	-.02090	.00310	-.00090	.20330	.06310	.10940	.20000	.52630
1.959	6.030	.25940	.06030	-.02190	.00330	-.00100	.19720	.06730	.23630	.22330	1.03800
1.959	8.290	.39330	.04140	-.02440	.00390	-.00090	.19160	.06930	.36190	.24620	1.47010
1.959	16.500	.59900	.02600	-.02670	.00600	-.00070	.16630	.06960	.46320	.27840	1.73630
1.959	18.740	.68340	.01100	-.02870	.00600	-.00070	.16080	.07030	.60910	.32300	1.88600
1.959	15.000	.80280	-.00940	-.02960	.00460	.00030	.17410	.07330	.73020	.37590	1.94230
1.959	17.220	.92330	-.01780	-.02700	.00370	-.00040	.16530	.07620	.83330	.43630	1.91030
1.959	19.390	1.02260	-.01080	-.02750	.00180	.00000	.16330	.07600	.90980	.49370	1.83330
1.959	21.470	1.10840	-.00900	-.12880	.00220	-.00010	.16060	.06040	.97260	.55330	1.75140
1.959	10.510	.53220	.02840	-.01360	.00610	-.00070	.18590	.06910	.48940	.27990	1.74840
GRADIENT		.06975	-.01495	-.00378	.00008	-.00025	-.00079	.00073	.06215	.00064	.30120

RUN NO. 65/ 0 RV/L = 6.32 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	CH	CLM	CT	CYN	CYL	CA	CAB	CL	CD	L/D
1.958	-.610	-.11330	.03960	-.01420	.00290	.00030	.15410	.02620	-.11170	.15330	-.71900
1.958	1.430	-.02470	.04560	-.01320	.00260	.00000	.15020	.02680	-.02850	.14950	-.19080
1.958	3.640	.07800	.03040	-.01330	.00210	.00000	.14630	.02710	.06230	.15060	.41540
1.958	5.810	.16940	.01730	-.01370	.00240	-.00010	.14200	.02870	.14820	.15780	.93670
1.958	7.980	.25360	.00700	-.01390	.00180	-.00010	.13760	.02860	.23210	.17160	1.55260
1.958	10.160	.34340	.00280	-.01620	.00120	-.00040	.13230	.03050	.31460	.19090	1.64740
1.958	12.370	.42950	-.00170	-.01720	.00020	-.00070	.12370	.03000	.39310	.21260	1.84670
1.958	14.600	.53010	-.00610	-.01780	.00150	-.00070	.11890	.02960	.48300	.24670	1.94210
1.958	16.780	.61720	-.01020	-.01800	.00090	-.00100	.11310	.03050	.55830	.26630	1.95000
1.958	18.970	.71660	-.01520	-.01740	.00040	-.00090	.10950	.03170	.64220	.33660	1.90750
1.958	21.040	.80000	-.01950	-.01680	.00000	-.00080	.10470	.03300	.70900	.36500	1.84170
1.958	10.160	.33660	.00160	-.01730	.00220	-.00050	.12820	.03040	.31060	.18600	1.86970
GRADIENT		.04360	-.02669	-.00030	-.00017	-.00007	-.00163	.00021	.04099	-.00106	.26702

DATE 28 SEP 73

TABULATED SOURCE DATA - MSFC TWT 574

PAGE 29

MSFC 574 (0448) ORB 1398

(R67018) (17 SEP 73)

REFERENCE DATA

SRZF = 2890.0000 84.17. 300P = 836.7000 IN.
 LWRP = 474.8000 IN. 140P = .0000 IN.
 BRZF = 836.7000 IN. 240P = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = -20.000
 AILKON = .000 BOFLAP = .000
 SPDRK = 999.990

RUN NO. 41/ 0 RWL = 4.05 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CSL	CA	CAS	CL	CD	L/D
2.990	-0.410	-0.04470	.00690	-.00140	.00100	.00090	.11320	.01560	-.06350	.11410	-.73200
2.990	1.290	-.03250	.00620	-.00210	.00090	.00070	.11020	.01570	-.03500	.10940	-.32040
2.990	3.360	.02920	.00320	-.00210	.00090	.00070	.10710	.01640	.02290	.10860	.21060
2.990	5.490	.09080	.00250	-.00260	.00060	.00050	.10200	.01710	.06060	.11030	.73140
2.990	7.560	.15610	.00090	-.00230	.00030	.00020	.09610	.01720	.14170	.11790	1.20220
2.990	9.670	.22180	-.00010	-.00320	.00060	.00030	.09490	.01730	.20270	.13090	1.54890
2.990	11.760	.28970	-.00140	-.00290	.00030	.00020	.09260	.01750	.26470	.14990	1.76510
2.990	13.860	.35900	-.00250	-.00430	.00030	.00020	.08960	.01760	.32690	.17340	1.86530
2.990	15.960	.43280	-.00250	-.00500	.00030	.00020	.08690	.01770	.39190	.20270	1.93300
2.990	18.070	.50790	-.00290	-.00430	.00030	.00020	.08450	.01770	.45660	.23790	1.91890
2.990	20.030	.58170	-.00310	-.00320	.00030	.00020	.08210	.01770	.51830	.27640	1.87500
2.990	22.550	.65170	-.00340	-.00240	.00070	.00010	.08320	.01730	.20630	.13180	1.56470
2.990	.00856	.00043	-.00017	-.00002	-.00002	-.00002	-.00153	.00020	.02668	-.00136	.23659

GRADIENT

RUN NO. 40/ 0 RWL = 4.86 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CSL	CA	CAS	CL	CD	L/D
4.999	-0.80	-0.07840	-.01790	-.00400	.00020	.00070	.06960	.00350	-.07740	.09060	-.89500
4.999	3.3	-.03740	-.01700	-.00420	-.00030	.00040	.06420	.00360	-.03940	.08330	-.47290
4.999	5.360	.00710	-.01330	-.00310	.00000	.00070	.06390	.00360	.00210	.06410	.02600
4.999	5.430	.04490	-.01160	-.00360	-.00030	.00050	.07920	.00390	.03720	.08310	.44730
4.999	7.490	.10160	-.00890	-.00160	.00010	.00060	.07620	.00360	.09100	.08890	1.02410
4.999	9.320	.15310	-.00490	-.00070	-.00010	.00060	.07470	.00390	.14060	.09940	1.41460
4.999	11.360	.21130	-.00360	.00010	.00000	.00070	.07290	.00390	.19230	.11390	1.68660
4.999	13.680	.27430	-.00440	-.00030	.00000	.00020	.07130	.00400	.24990	.13420	1.86210
4.999	15.700	.33610	-.00470	.00100	-.00000	.00010	.07030	.00410	.30450	.15670	1.91660
4.999	17.770	.40600	-.00430	-.00160	-.00000	.00000	.06860	.00410	.36560	.16940	1.92990
4.999	19.720	.47570	-.00400	-.00300	-.00060	.00040	.06710	.00410	.42510	.22370	1.90030
4.999	21.630	.54630	-.00470	-.00060	.00000	.00040	.06730	.00410	.48190	.09910	1.43110
4.999	23.615	.62165	.00107	.00023	-.00005	.00000	-.00151	.00006	.02013	-.00163	.22325

GRADIENT

DATE 28 SEP 75

TABULATED SOURCE DATA - NSFC TWT 574

PAGE 30

(R07019) (16 JUL 75)

NSFC 574 (0448) ORB 1398

REFERENCE DATA

SKEP = 2090.0000 96.00 FT. XREF = 838.7000 IN.
 LREF = 474.0000 IN. YREF = .0000 IN.
 SKEP = 936.7000 IN. ZREF = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = -20.000
 ALLRON = .000 BDFLAP = .000
 SPOBRK = 999.990

RUN NO. 36/ 0 RV/L = 4.06 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CT	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	20.510	.50890	-.00680	-.00760	.00000	-.00040	.08300	.01780	.51680	.28200	1.83250
2.990	22.490	.68020	-.00770	-.00790	.00000	-.00020	.06070	.01760	.57910	.32720	1.76970
2.990	24.960	.74360	-.01020	-.00760	-.00050	-.00010	.07790	.01750	.64380	.38030	1.69270
2.990	26.710	.82890	-.01220	-.00640	-.00040	-.00040	.07590	.01740	.70630	.44030	1.60320
2.990	28.810	.91800	-.01430	-.00580	-.00020	-.00030	.07290	.01730	.76910	.50640	1.51870
2.990	30.920	1.00530	-.01760	-.01110	-.00030	-.00070	.07020	.01760	.82620	.57690	1.43210
2.990	33.030	1.08900	-.02090	-.01370	.00050	-.00100	.06790	.01800	.88330	.65580	1.34680
2.990	35.190	1.16950	-.02420	-.01590	.00130	-.00150	.06500	.01830	.93790	.74100	1.26560
2.990	37.290	1.24950	-.02850	-.01680	.00130	-.00160	.06180	.01840	.98530	.82780	1.19020
2.990	39.410	1.32920	-.03290	-.01820	.00160	-.00180	.05810	.01820	1.02870	.92080	1.11730
2.990	41.400	1.40470	-.03580	-.01830	.00100	-.00160	.05510	.01800	1.06810	1.01000	1.05150
2.990	43.400	1.47490	-.03690	-.01070	-.00010	-.00080	.07090	.01760	.82910	.57910	1.45160
2.990	45.400	1.54490	-.03610	-.00061	-.00009	-.00006	-.00132	.00003	.02647	.03503	-.03632
2.990	47.400	1.61490	-.03440	-.00002	-.00002	-.00002	-.00002	-.00002	-.00002	-.00002	-.00002

RUN NO. 39/ 0 RV/L = 4.86 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CT	CYN	CBL	CA	CAB	CL	CD	L/D
4.999	20.180	.47770	-.00350	-.00440	-.00050	.00010	.07010	.00360	.42420	.23060	1.83940
4.999	22.130	.55220	-.00130	-.00450	-.00060	.00010	.06880	.00360	.48550	.27180	1.78640
4.999	24.200	.62890	-.00420	-.00600	-.00120	-.00040	.06750	.00360	.54590	.31930	1.70930
4.999	26.270	.71430	-.00380	-.00640	-.00080	-.00010	.06650	.00340	.61100	.37590	1.62540
4.999	28.350	.80200	-.00420	-.00680	-.00130	-.00010	.06580	.00370	.67460	.43660	1.53780
4.999	30.410	.89130	-.00590	-.00980	-.00110	-.00060	.06430	.00360	.73610	.50670	1.45270
4.999	32.490	.96670	-.00920	-.01230	-.00060	-.00100	.06310	.00360	.79830	.58330	1.36860
4.999	34.590	1.07970	-.01020	-.01150	.00000	-.00060	.06090	.00360	.85420	.66310	1.28810
4.999	36.650	1.17420	-.01640	-.01330	.00070	-.00060	.05920	.00360	.90660	.74850	1.21120
4.999	38.730	1.27290	-.02110	-.01390	.00090	-.00060	.05780	.00340	.95670	.84150	1.13680
4.999	40.890	1.36170	-.02440	-.01490	.00050	-.00060	.05790	.00360	.99470	.93170	1.06730
4.999	42.960	1.44620	-.02650	-.00990	-.00110	-.00080	.05490	.00360	.74000	.50960	1.45180
4.999	45.040	1.52490	-.02610	-.00036	-.00002	-.00002	-.00002	-.00002	.02631	.03431	-.03674

DATE 28 SEP 73 TABULATED SOURCE DATA - NSFC TWT 574

(187020) (10 JUL 73)

NSFC 574 (0448) ORB 1398

PARAMETRIC DATA

BETA = .000 ELEVTR = -20.000
 AILRON = .000 BOFLAP = .000
 SPOSRK = 999.990

REFERENCE DATA

SREF = 2990.0000 58.17. XREF = 238.7000 IN.
 LREF = 474.8000 IN. YREF = .0000 IN.
 BREF = 936.7000 IN. ZREF = .0000 IN.
 SCALE = .0040

RUN NO. 56/ 0 RW/L = 4.90 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CM	CA	CAB	CL	CD	L/D
4.959	40.390	1.32840	-.03350	-.03630	-.00600	-.00600	.05990	.00220	.97290	.90630	1.07320
4.959	42.300	1.41580	-.03820	-.03800	-.00570	-.00910	.05850	.00190	1.00760	.99630	1.01130
4.959	44.360	1.50800	-.04260	-.03840	-.00560	-.00940	.05620	.00140	1.03870	1.08470	.94890
4.959	46.400	1.60010	-.04680	-.03930	-.00530	-.00960	.05470	.00070	1.06370	1.19660	.88890
4.959	48.460	1.69290	-.05430	-.03920	-.00430	-.00950	.05290	.00030	1.08320	1.30190	.83200
4.959	50.470	1.77960	-.05710	-.04030	-.00420	-.00790	.04980	.00000	1.09410	1.40480	.77890
4.959	52.510	1.85620	-.05380	-.03870	-.00490	-.00480	.04860	-.00020	1.09220	1.50410	.72610
4.959	54.560	1.91410	-.04100	-.03930	-.00600	-.00480	.04730	-.00060	1.07110	1.59700	.67490
4.959	56.570	1.96130	-.02560	-.03780	-.00520	-.00490	.04570	-.00140	1.04230	1.68230	.62700
4.959	58.590	1.99930	-.01510	-.03840	-.00560	-.00560	.04060	-.00210	1.00700	1.72780	.58290
4.959	60.490	2.03960	-.01170	-.03780	-.00560	-.00590	.03580	-.00300	.97330	1.79280	.54290
4.959	50.470	1.77970	-.05700	-.03960	-.00430	-.00800	.03040	-.00020	1.09360	1.40490	.77840
4.959	50.470	.03614	.00120	-.00003	.00031	.00025	-.00109	-.00024	.00017	.04512	-.02634

GRADIENT

TABULATED SOURCE DATA - NSFC TWT 574

DATE 26 SEP 73

NSFC 574 (0A48) ORB 1398

(R87021) (18 JUL 73)

PARAMETRIC DATA

BCTA = .000 ELEVTR = -40.000
 ATLORN = .000 BDFLAP = -14.250
 SPDSRK = 999.990

REFERENCE DATA

SRCT = 2000.0000 88.47. XMRP = 038.7000 IN.
 LREF = 474.0000 IN. YMRP = .0000 IN.
 BRCT = 938.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

RUN NO. 94/ 0 RV/L = 4.94 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.996	-7.770	-50220	.22540	.00010	-.00140	.00130	.14830	.03470	-.00010	.15510	-3.22300
.996	1.210	-40110	.22030	-.00280	-.00140	.00100	.14720	.03540	-.40410	.13870	-2.91280
.996	3.320	-29980	.21710	-.00330	-.00060	.00120	.14310	.03720	-.30670	.12550	-2.44300
.996	5.410	-20480	.22030	-.00330	-.00110	.00060	.13520	.04060	-.21660	.11530	-1.87880
.996	7.510	-10990	.21700	-.00710	-.00070	.00030	.12340	.04040	-.10490	.11070	-.94810
.996	9.820	.03340	.20410	-.01010	.00050	-.00010	.10660	.03420	.01510	.11070	.13650
.996	11.730	.18190	.20230	-.00900	-.00190	.00390	.10210	.03680	.13740	.13280	1.03430
.996	13.870	.26930	.19840	-.01280	-.00070	-.00200	.09630	.03600	.26740	.16550	1.81320
.996	15.960	.40690	.20160	-.01480	.00030	-.00070	.08710	.03400	.36720	.19370	1.87540
.996	18.070	.53480	.20130	-.01900	.00110	-.00150	.08120	.03230	.48320	.24320	1.98670
.996	20.090	.66600	.19500	-.02730	.00240	-.00200	.07590	.03710	.59940	.30000	1.99730
.996	9.820	.03680	.21010	-.00960	.00010	.00000	.11040	.04010	.01780	.11500	.15490
GRADIENT		.04969	-.00202	-.00082	.00020	-.00002	-.00128	.00061	.04727	-.00723	.19106

RUN NO. 93/ 0 RV/L = 6.23 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.892	-9.910	-47480	.22550	-.00340	-.00050	.00090	.19540	.04640	-.47160	.20290	-2.32360
.892	1.120	-35630	.21920	-.00500	-.00030	.00030	.19100	.04480	-.38230	.18390	-1.96620
.892	3.320	-24450	.20840	-.00550	-.00060	.00080	.18350	.04630	-.25470	.16900	-1.50650
.892	5.510	-11970	.19970	-.01040	-.00040	.00100	.17660	.05140	-.13210	.16460	-.80240
.892	7.730	.04100	.17960	-.01340	.00020	.00030	.16710	.05020	.01810	.17110	.10620
.892	9.940	.19820	.16090	-.01320	-.00130	-.00010	.15320	.04820	.16680	.18480	.90240
.892	12.150	.34210	.14950	-.01840	.00000	.00040	.14380	.04710	.30420	.21260	1.43060
.892	14.400	.49970	.13440	-.02030	.00000	.00030	.12920	.04530	.45180	.24930	1.81080
.892	16.620	.64590	.12390	-.02200	.00000	.00000	.12090	.04450	.58430	.30070	1.94320
.892	18.790	.77520	.11690	-.02320	-.00020	.00020	.11270	.04690	.69750	.35640	1.95660
.892	20.870	.87860	.12150	-.01540	-.00450	-.00280	.11040	.05250	.78170	.41640	1.87740
.892	9.980	.20940	.15890	-.01340	-.00130	.00000	.15610	.04860	.17920	.19000	.94320
GRADIENT		.05441	-.00403	-.00049	-.00003	-.00002	-.00262	-.00001	.05124	-.00800	.19340

DATE 20 SEP 73 TABULATED SOURCE DATA - NSFC TMT 574

(R07021) (10 JUL 73)

NSFC 574 (0448) Q18 1398

REFERENCE DATA

9007 = 2000.0000 36. FT. 100P = 836.7000 IN.
 1007 = 474.0000 IN. 100P = .0000 IN.
 9007 = 936.7000 IN. 200P = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = -40.000
 AIRRON = .000 BDFLAP = -14.250
 SPDRBK = 999.990

RUN NO. 92/ 0 RV/L = 6.66 GRADIENT INTERVAL = -5.00/ 5.00

MACN	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
1.197	-8.70	-41.930	.24820	-.00200	-.00210	-.00080	.29330	.06940	-.41040	.29960	-1.36970
1.197	1.250	-.28090	.21620	-.00490	-.00160	-.00100	-.27937	.06880	-.26690	.27380	-.97500
1.197	3.510	-.11800	.19480	-.00550	-.00210	-.00250	.27560	.07220	-.13470	.26790	-.50300
1.197	5.780	.04270	.16320	-.01120	-.00060	-.00130	.27060	.07690	.01330	.27330	.05600
1.197	8.040	.19690	.14140	-.01340	-.00000	-.00100	.25800	.07790	.15880	.28300	.56130
1.197	10.300	.34440	.12480	-.01460	.00000	-.00160	.24730	.07850	.29460	.30500	.96600
1.197	12.580	.49040	.10830	-.01910	.00070	-.00130	.23680	.07690	.42710	.33780	1.26450
1.197	14.850	.63820	.08710	-.02390	.00210	-.00090	.22290	.07390	.59960	.37900	1.47710
1.197	17.100	.79020	.06650	-.02530	.00250	-.00140	.19850	.06700	.69690	.42220	1.65050
1.197	19.280	.89740	.04600	-.02670	.00140	-.00110	.19230	.07010	.78340	.47790	1.83920
1.197	21.370	.96750	.07170	-.02370	.00060	-.00080	.18630	.07290	.85160	.53340	1.99640
1.197	10.310	.35080	.12330	-.01450	.00000	-.00150	.24640	.07780	.30110	.30530	.98620
1.197	GRADIENT	.06776	-.01221	-.00079	-.00000	-.00028	-.00402	.00065	.06290	-.00719	.19800

RUN NO. 61/ 0 RV/L = 6.44 GRADIENT INTERVAL = -5.00/ 5.00

MACN	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
1.901	-7.740	-.21150	.10280	-.01250	.00230	.00010	.19630	.03120	-.20890	.19570	-1.04960
1.901	1.310	-.11400	.06460	-.01150	.00170	-.00010	.16500	.03220	-.11820	.18240	-.64820
1.901	3.520	-.01670	.07110	-.01130	.00110	-.00020	.17770	.03190	-.02760	.17630	-.15690
1.901	5.700	.07910	.03780	-.01320	.00140	-.00040	.16730	.03310	.06210	.17430	.35620
1.901	7.890	.17010	.04890	-.01260	.00080	-.00040	.15970	.03390	.14630	.18190	.60720
1.901	10.090	.26430	.04490	-.01300	.00030	-.00070	.15400	.03240	.23320	.19790	1.17850
1.901	12.270	.35320	.04330	-.01320	.00120	-.00030	.14800	.03260	.31360	.21960	1.42680
1.901	14.510	.45320	.03960	-.01680	.00080	-.00030	.14070	.03290	.40340	.24960	1.81460
1.901	16.700	.55010	.03670	-.01740	.00060	-.00030	.13620	.03330	.48770	.28660	1.66990
1.901	18.910	.64570	.03230	-.01670	.00020	-.00030	.13040	.03500	.56860	.33270	1.70910
1.901	21.020	.74470	.02910	-.01670	.00060	-.00040	.12340	.03550	.65190	.38240	1.70180
1.901	10.100	.26960	.04470	-.01350	.00020	-.00070	.15340	.03130	.23670	.19630	1.20340
1.901	GRADIENT	.04571	-.00743	.00028	-.00007	-.00007	-.00435	.00016	.04254	-.00330	.20972

DATE 28 SEP 73

(R07021) (18 JUL 73)

TABULATED SOURCE DATA - NSFC TWT 574
NSFC 574 (0448) ORS 1398

PARAMETRIC DATA

BETA = .000 ELEVTR = -40.000
AILRON = .000 BOFLAP = -14.250
SPDRK = 999.990

REFERENCE DATA

SREF = 2690.0000 30.FT. XREF = 838.7000 IN.
LREF = 474.8000 IN. YREF = .0000 IN.
BREF = 936.7000 IN. ZREF = .0000 IN.
SCALE = .0040

RUN NO. 29/ 0 RV/L = 4.06 GRADIENT INTERVAL = -5.00/ 5.00

NACH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	-1.980	.03390	.03390	.00220	.00220	.00010	.13670	.01620	-.13640	.13610	-1.00160
2.990	-1.980	.03390	.03390	.00220	.00220	.00010	.13670	.01620	-.13640	.13610	-1.00160
2.990	1.360	.03220	.03220	.00190	.00190	.00000	.13210	.01590	-.08710	.13010	-.66990
2.990	3.430	.03120	.03120	.00150	.00150	.00000	.12680	.01580	-.03130	.12520	-.23020
2.990	5.520	.02950	.02950	.00130	.00130	.00000	.12040	.01620	.03190	.12400	.25720
2.990	7.570	.02630	.02630	.00080	.00080	.00020	.11310	.01650	.09390	.12660	.74190
2.990	9.640	.02580	.02580	.00030	.00030	.00010	.10870	.01610	.15670	.13680	1.14010
2.990	11.720	.02440	.02440	.00000	.00000	.00010	.10490	.01660	.21800	.15240	1.43020
2.990	13.820	.02720	.02720	.00010	.00010	.00010	.10190	.01660	.27800	.17340	1.60370
2.990	15.880	.02690	.02690	.00010	.00010	.00000	.09880	.01630	.34200	.20000	1.70920
2.990	17.940	.02670	.02670	.00010	.00010	.00010	.09470	.01630	.40580	.23100	1.75640
2.990	19.920	.02630	.02630	.00020	.00020	.00010	.09210	.01680	.46720	.26730	1.74780
2.990	9.650	.02610	.02610	.00020	.00020	.00000	.10870	.01610	.16050	.13760	1.16670
2.990	.02588	.00067	.00067	.00005	.00005	.00005	-.00246	-.00010	.02665	-.00320	.16708

RUN NO. 28/ 0 RV/L = 4.92 GRADIENT INTERVAL = -5.00/ 5.00

NACH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.999	-1.540	.00740	.00740	.00000	.00000	.00050	.11310	.00320	-.12120	.11630	-1.04230
4.999	1.360	.00830	.00830	.00020	.00020	.00050	.10820	.00340	-.08030	.10630	-.75570
4.999	3.410	.00770	.00770	.00020	.00020	.00000	.10180	.00330	-.03830	.09960	-.36480
4.999	5.460	.00790	.00790	.00030	.00030	.00010	.09510	.00350	.01060	.09660	.10990
4.999	7.480	.00790	.00790	.00030	.00030	.00030	.08930	.00350	.06010	.09800	.61560
4.999	9.510	.00680	.00680	.00020	.00020	.00050	.08390	.00360	.10120	.10200	.99140
4.999	11.550	.00680	.00680	.00010	.00010	.00050	.08060	.00370	.15940	.11490	1.38730
4.999	13.590	.00680	.00680	.00010	.00010	.00020	.07780	.00380	.21590	.13230	1.63190
4.999	15.630	.00690	.00690	.00010	.00010	.00020	.07460	.00370	.27540	.15460	1.78130
4.999	17.680	.00690	.00690	.00010	.00010	.00020	.07190	.00360	.33380	.18190	1.83460
4.999	19.600	.00690	.00690	.00010	.00010	.00030	.06870	.00370	.38930	.21380	1.82120
4.999	9.510	.00635	.00635	.00010	.00010	.00030	.06470	.00370	.11200	.10470	1.06990
4.999	.02276	.00033	.00033	.00005	.00005	.00012	-.00337	.00002	.02098	-.00422	.16661

DATE 28 SEP 73

TABULATED SOURCE DATA - WSFC TWT 574

PAGE 35

WSFC 574 (0448) ORB 1398

(R07022) (18 JUL 73)

REFERENCE DATA

SREF = 2892.0000 80.00 FT. XREF = 838.7000 IN.
 LREF = 474.0000 IN. YREF = .0000 IN.
 BREF = 938.7000 IN. ZREF = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = -40.000
 AIRCON = .000 BDFLAP = -14.250
 SPDRK = 998.990

RUN NO. 26/ 0 RVL = 4.07 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/O
2.990	20.550	.53640	.02870	-.00620	-.00100	.00010	.09180	.01720	.47000	.27430	1.71350
2.990	22.530	.61240	.02790	-.00680	-.00150	.00020	.08870	.01740	.53160	.31670	1.67870
2.990	24.820	.69100	.02700	-.00770	-.00160	.00020	.08530	.01760	.59260	.36540	1.62150
2.990	26.750	.77410	.02710	-.00850	-.00140	.00030	.08300	.01750	.65400	.42240	1.54830
2.990	28.800	.85870	.02790	-.01020	-.00150	.00020	.07930	.01760	.71410	.48330	1.47750
2.990	30.900	.94470	.02720	-.01070	-.00140	.00010	.07650	.01780	.77120	.55090	1.39990
2.990	33.000	1.03200	.02720	-.01320	-.00100	.00000	.07340	.01810	.82540	.62370	1.32340
2.990	35.120	1.11970	.02620	-.01490	-.00010	-.00050	.07080	.01890	.87510	.70210	1.24630
2.990	37.210	1.20610	.02610	-.01710	.00000	-.00090	.06700	.01860	.92150	.78410	1.17520
2.990	39.270	1.29410	.02650	-.01790	.00020	-.00110	.06400	.01890	.96130	.86880	1.10650
2.990	41.280	1.37550	.02670	-.01800	.00000	-.00090	.06140	.01820	.99330	.95340	1.04190
2.990	43.950	.94950	.02660	-.01040	-.00000	.00000	.07630	.01790	.77540	.55320	1.40140
2.990	GRADIENT	.04073	.00003	-.00064	.00009	-.00007	-.00147	.00007	.02563	.03297	-.03376

RUN NO. 27/ 0 RVL = 4.93 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/O
4.999	20.250	.45090	.01590	-.00390	-.00070	-.00080	.07410	.00390	.39740	.22550	1.76250
4.999	22.180	.52220	.01820	-.00470	-.00120	-.00050	.07220	.00390	.45620	.26400	1.72770
4.999	24.250	.60000	.01920	-.00520	-.00150	-.00040	.07130	.00390	.51780	.31130	1.66330
4.999	26.370	.67910	.02250	-.00590	-.00140	-.00020	.06990	.00390	.57780	.36370	1.58850
4.999	28.540	.76220	.02510	-.00620	-.00220	-.00030	.06970	.00410	.63770	.42320	1.50660
4.999	30.400	.84620	.02650	-.00790	-.00160	-.00040	.06880	.00410	.6950	.48750	1.42350
4.999	32.450	.93310	.02850	-.00890	-.00100	-.00070	.06750	.00390	.75110	.55780	1.34650
4.999	34.530	1.02220	.02980	-.01070	-.00110	-.00060	.06620	.00370	.80450	.63400	1.26880
4.999	36.570	1.11170	.02850	-.01180	-.00140	-.00070	.06350	.00350	.85490	.71350	1.19610
4.999	38.630	1.20070	.02810	-.01180	-.00180	-.00040	.06190	.00320	.89520	.79800	1.12670
4.999	40.990	1.28920	.02810	-.01320	-.00200	-.00020	.06140	.00290	.93600	.88280	1.06020
4.999	43.750	.84750	.02810	-.00720	-.00150	-.00030	.06890	.00360	.69600	.48840	1.42320
4.999	GRADIENT	.04120	.00061	-.00047	-.00003	.00001	-.00061	-.00004	.02684	.03244	-.03602

TABULATED SOURCE DATA - MSFC TWT 574

(R07023) (16 JUL 73)

MSFC 574 (0448) CRB 1398

REFERENCE DATA

SREF = 2990.0000 36. FT. XMRP = 938.7000 IN.
 LREF = 474.0000 IN. YMRP = .0000 IN.
 BREF = 936.7000 IN. ZMRP = .0900 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = -40.000
 AIRRON = .000 BOFLAP = -14.250
 SPDBRK = 999.990

RUN NO. 54/ 0 RN/L = 4.91 GRADIENT INTERVAL = -5.00/ 5.00

NOCH	ALPHA	ON	CLK	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.959	40.390	1.29930	.02250	-.03560	-.00730	-.00690	.06420	.03170	.91750	.06500	1.08070
4.959	42.300	1.33650	.02440	-.03510	-.00750	-.00710	.06280	.00170	.94760	.04750	1.00010
4.959	44.360	1.42820	.02280	-.03610	-.00760	-.00780	.06200	.00150	.97620	1.04180	.93720
4.959	46.400	1.50690	.02180	-.03770	-.00750	-.00800	.06090	.00140	.99640	1.13470	.87600
4.959	48.430	1.59590	.02120	-.03680	-.00750	-.00790	.05770	.00110	1.01560	1.23240	.82400
4.959	50.470	1.67760	.02040	-.03640	-.00660	-.00720	.05660	.00080	1.02400	1.33000	.76990
4.959	52.500	1.75690	.02290	-.03670	-.00730	-.00540	.05370	.00060	1.02660	1.42680	.71950
4.959	54.560	1.81320	.03530	-.04060	-.00710	-.00520	.05360	.00020	1.00770	1.50830	.66900
4.959	56.590	1.86110	.05100	-.03700	-.00730	-.00500	.05150	-.00010	.98170	1.58200	.62050
4.959	58.590	1.89780	.06260	-.03970	-.00730	-.00610	.04820	-.00070	.94780	1.64490	.57620
4.959	60.510	1.93120	.07160	-.03780	-.00740	-.00560	.04460	-.00100	.91170	1.70300	.53530
4.959	60.470	1.98010	.01990	-.03970	-.00710	-.00570	.04610	-.00040	1.02590	1.73170	.77040
4.959	GRADIENT	.03444	.00229	-.00017	.00001	.00012	-.00093	-.00014	.00011	.04284	-.02602

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TABULATED SOURCE DATA - NSFC TMT 374

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NSFC 574 (GA48) CRB 1398

(R87024) (18 JUL 73)

REFERENCE DATA

SREF = 2893.0000 36. FT. XMRP = 838.7000 IN.
 LREF = 474.0000 IN. YMRP = .0000 IN.
 BREF = 956.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

BETA = .000 ELEVTR = .000
 AIRCON = .000 BDFLAP = -14.250
 SPDRK = 999.999

PARAMETRIC DATA

RUN NO. 89/ 0 RVL = 4.90 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.593	-.300	-.09180	.06040	-.01183	.00190	.00100	.05960	.02990	-.09130	.06040	-1.51020
.593	1.480	.00630	.05860	-.01130	.00210	.00080	.05810	.02950	.00500	.05830	.06680
.593	3.570	.10710	.05770	-.01520	.00210	.00140	.05280	.02940	.10360	.05930	1.74450
.593	5.660	.20890	.05690	-.01530	.00270	-.00010	.04290	.02910	.20370	.06340	3.21290
.593	7.760	.32120	.05610	-.01800	.00220	-.00090	.03200	.02890	.31390	.07320	4.17480
.593	9.870	.43810	.05070	-.01790	.00230	-.00080	.02300	.02990	.42770	.09780	4.37280
.593	11.970	.55520	.04920	-.01820	.00180	-.00170	.02350	.03130	.53780	.14030	5.83160
.593	14.100	.67530	.03400	-.02490	.00300	-.00100	.02590	.03250	.64860	.10960	3.42010
.593	16.170	.76180	.03400	-.03170	.00420	-.00190	.02840	.04040	.74330	.24310	3.03040
.593	18.300	.83680	.02610	-.03270	.00470	-.00330	.02270	.04540	.86250	.31320	2.79930
.593	20.330	1.08840	.01360	-.03670	.00460	-.00210	.01600	.04540	1.01430	.59310	2.56770
.593	GRADIENT	.44120	.03210	-.01900	.00230	-.00030	.02330	.03030	.43070	.09870	4.36360
.593		.04895	-.00086	-.00085	.00005	-.00015	-.00168	-.00014	.04787	-.00026	.79930

RUN NO. 90/ 0 RVL = 6.21 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.898	-.320	-.10760	.06480	-.01640	.00260	.00190	.06990	.02890	-.10690	.07090	-1.50770
.898	1.520	.01150	.07630	-.01790	.00270	.00230	.07010	.02790	.00960	.07140	.13720
.898	3.730	.13590	.06440	-.01860	.00240	.00160	.07000	.02810	.13110	.07870	1.66360
.898	5.970	.25590	.05210	-.02210	.00290	.00070	.06940	.02930	.24740	.09310	2.59370
.898	8.070	.38000	.03510	-.02370	.00260	-.00110	.07070	.03040	.36630	.12340	2.96750
.898	10.230	.49690	.01990	-.02450	.00310	-.00200	.07140	.03210	.47630	.15860	3.00230
.898	12.440	.63640	.00390	-.02430	.00130	-.00230	.07170	.03530	.60620	.20710	2.92590
.898	14.640	.78010	-.00120	-.02630	.00320	-.00400	.07350	.03920	.71690	.26320	2.72300
.898	16.820	.89090	-.00810	-.03030	.00270	-.00360	.07710	.04320	.83040	.33170	2.50320
.898	18.990	.99100	-.00150	-.02910	.00110	-.00350	.07970	.04990	.91110	.39790	2.28970
.898	21.030	1.06525	.01940	-.03040	.00040	-.00450	.08240	.05750	.96460	.45920	2.10020
.898	23.260	.91350	.01730	-.02560	.00310	-.00210	.07190	.03230	.49230	.16220	3.03320
.898	GRADIENT	.05728	-.00476	-.00051	-.00009	-.00007	.00002	-.00002	.00186	.00186	.74394

DATE 28 SEP 73

TABULATED SOURCE DATA - NSFC TWT 574

PAGE 36

NSFC 574 (0448) CRB 1398

(187024) (18 JUL 73)

REFERENCE DATA

SHFT = 2990.0000 58.FT. XMRP = 838.7000 IN.
 LREF = 474.0000 IN. YMRP = .0000 IN.
 BRFT = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 ATLRON = .000 BCFLAP = -14.250
 SPDBRK = 999.990

RUN NO. 91/ 0 RV/L = 6.66 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
1.198	-390	-.00310	.05330	-.01510	.00310	.00090	.16920	.05280	-.00190	.16900	-.01170
1.198	1.690	.12660	.02600	-.01690	.00300	.00080	.15720	.05170	.12180	.17060	.71280
1.198	3.940	.28130	.00040	-.01810	.00310	.00030	.16430	.05120	.24940	.16190	1.37100
1.198	6.190	.39090	-.02030	-.01950	.00330	.00010	.16070	.05300	.37140	.20170	1.84120
1.198	8.370	.50870	-.03070	-.01960	.00270	-.00090	.15580	.05380	.48060	.22820	2.10590
1.198	10.600	.63970	-.04450	-.02770	.00190	.00190	.15310	.05740	.60060	.26820	2.23680
1.198	12.840	.77850	-.06220	-.02750	.00170	.00170	.15180	.06180	.72530	.32110	2.25870
1.198	15.090	.90400	-.07600	-.02510	.00280	-.00110	.14950	.06360	.83390	.37980	2.19540
1.198	17.290	1.02450	-.08500	-.02350	.00210	-.00180	.14660	.06530	.93460	.44450	2.10250
1.198	19.480	1.12550	-.08590	-.02690	.00190	-.00160	.14500	.07020	1.01270	.51210	1.97750
1.198	21.560	1.21860	-.08370	-.02680	.00140	-.00160	.14180	.07250	1.08110	.57990	1.86420
1.198	10.610	.64260	-.04500	-.02710	.00310	.00210	.13260	.05670	.60350	.26830	2.24870
GRADIENT		.06104	-.01221	-.00069	.00000	-.00005	-.00109	-.00032	.03802	.00301	.31897

RUN NO. 62/ 0 RV/L = 6.32 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
1.951	-540	-.04480	.01540	-.01390	.00210	.00000	.14280	.03120	-.04290	.14300	-.30610
1.951	1.520	.04090	.00420	-.01390	.00220	.00000	.14080	.03200	.03670	.14190	.25880
1.951	3.720	.13120	-.00670	-.01470	.00220	-.00020	.13820	.03280	.12200	.14640	.83310
1.951	5.880	.22220	-.01690	-.01500	.00190	-.00020	.13750	.03220	.20700	.15960	1.29670
1.951	8.090	.31310	-.02570	-.01600	.00160	-.00020	.13370	.03270	.29120	.17850	1.85000
1.951	10.250	.40110	-.03080	-.01680	.00180	-.00040	.12900	.03290	.37170	.19840	1.87310
1.951	12.420	.47960	-.03240	-.01740	.00170	-.00060	.12270	.03360	.44220	.22300	1.98260
1.951	14.660	.57280	-.03660	-.01840	.00130	-.00100	.11810	.03320	.52420	.25920	2.02190
1.951	16.900	.67190	-.04100	-.01910	.00070	-.00100	.11490	.03290	.60980	.30470	2.00070
1.951	19.090	.77360	-.04630	-.01770	.00020	-.00100	.11110	.03420	.69490	.35760	1.94330
1.951	21.160	.87130	-.05150	-.01790	-.00040	-.00090	.10810	.03480	.77350	.41540	1.86190
1.951	10.260	.40270	-.02990	-.01680	.00160	-.00040	.12790	.03210	.37350	.19780	1.89000
GRADIENT		.04117	-.00519	-.00019	.00002	-.00005	-.00103	.00033	.03671	.00081	.28595

DATE 28 SEP 73

(R07024) (18 JUL 75)

MSFC 574 (0A48) ORB 1998

PARAMETRIC DATA

BETA = .000 ELEVTR = .070
 AILRON = .000 BOFLAP = -14.250
 SPDGRK = 999.990

REFERENCE DATA

SRCP = 2890.0000 58. FT. XMRP = 838.7000 IN.
 LREF = 474.8000 IN. YMRP = .0000 IN.
 PRCP = 938.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

RUN NO. 33/ 0 RV/L = 4.06 GRADIENT INTERVAL = -5.00/ 5.00

MACN	ALPHA	ON	CLM	CY	CYN	CEL	CA	CAS	CL	CD	L/D
2.990	9.680	.24210	-.01100	-.00150	.00020	.00010	.09130	.01600	.22330	.13070	1.70750
2.990	-5.60	-.05400	-.01170	-.00150	.00000	.00040	.10760	.01580	-.03290	.10840	-4.8670
2.990	1.410	-.00330	-.01010	-.00180	.00000	.00030	.10620	.01600	-.00590	.10610	-.09630
2.990	3.450	.05320	-.01030	-.00250	.00010	.00030	.10270	.01600	.04690	.10570	.44380
2.990	5.540	.11320	-.01010	-.00170	.00000	.00010	.09840	.01630	.10310	.10880	.94750
2.990	7.610	.17630	-.01100	-.00180	-.00010	.00010	.09440	.01580	.16230	.11700	1.38710
2.990	9.680	.24290	-.01120	-.00150	.00010	.00010	.09120	.01590	.22410	.13080	1.71370
2.990	11.760	.30950	-.01260	-.00290	.00000	.00000	.08800	.01600	.28500	.14920	1.90980
2.990	13.860	.38230	-.01270	-.00310	.00000	.00000	.08580	.01600	.35060	.17490	2.00370
2.990	15.920	.45410	-.01630	-.00450	-.00020	.00000	.08340	.01590	.41380	.20490	2.01890
2.990	18.020	.53020	-.01750	-.00320	-.00010	.00000	.08190	.01630	.47880	.24190	1.97890
2.990	20.000	.60430	-.02040	-.00470	-.00030	.00000	.07910	.01630	.54080	.28110	1.92370
2.990	GRADIENT	.02914	.00002	.00001	.00002	-.00003	-.00167	.00001	.02720	.00242	.21406

RUN NO. 32/ 0 RV/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

MACN	ALPHA	ON	CLM	CY	CYN	CEL	CA	CAS	CL	CD	L/D
4.999	-5.40	-.06300	-.02660	-.00210	.00090	.00010	.08580	.00360	-.08220	.06640	-.71980
4.999	1.390	-.02580	-.02470	-.00290	.00090	.00030	.08270	.00370	-.02780	.08200	-.33990
4.999	3.410	.00040	-.02120	.00010	.00070	.00030	.08120	.00370	.01350	.08230	.18870
4.999	5.480	.08290	-.01280	-.00080	.00030	.00020	.07630	.00370	.03350	.08200	.67470
4.999	7.480	.11000	-.01670	-.00160	.00040	-.00020	.07330	.00370	.09950	.08710	1.14260
4.999	9.500	.16920	-.01460	-.00140	.00000	-.00030	.07170	.00360	.15110	.09810	1.54040
4.999	11.560	.21980	-.01360	-.00150	.00020	-.00020	.06980	.00390	.20120	.11250	1.78810
4.999	13.620	.28060	-.01280	-.00100	.00030	-.00020	.06820	.00400	.25680	.13250	1.93810
4.999	15.670	.34910	-.01470	-.00170	.00010	-.00030	.06660	.00400	.31810	.15840	2.00810
4.999	17.710	.41230	-.01500	-.00250	.00000	-.00060	.06580	.00390	.37280	.18790	1.98320
4.999	19.680	.48610	-.01360	-.00240	.00010	-.00040	.06460	.00390	.43790	.22510	1.94460
4.999	21.600	.56830	-.01430	-.00070	.00060	-.00020	.06340	.00390	.52100	.19760	1.55840
4.999	GRADIENT	.02113	.00137	.00056	-.00003	.00005	-.00116	.00003	.01966	-.00103	.23024

REFERENCE DATA

SREF = 2490.0000 98.0000 IN. XREF = 038.7000 IN.
 YREF = 474.8000 IN. YREF = .0000 IN.
 ZREF = 936.7000 IN. ZREF = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 AIRCON = .000 BDFLAP = -14.250
 SPDRK = 999.990

RUN NO. 30/ 0 RV/L = 4.07 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CH	CLM	CT	CYN	CEL	CA	CAS	CL	CD	L/D
2.990	30.990	1.04270	-.03880	-.01170	-.00050	-.00030	.07130	.01760	.05750	.99740	1.43940
2.990	30.990	.61400	-.02110	-.00750	-.00090	-.00010	.06030	.01670	.54650	.29110	1.87680
2.990	22.990	.66030	-.02390	-.00720	-.00060	-.00020	.07830	.01660	.60720	.33750	1.79890
2.990	24.660	.77180	-.02710	-.00940	-.00090	-.00020	.07620	.01650	.66970	.39140	1.71100
2.990	26.770	.86010	-.03110	-.00900	-.00110	-.00030	.07470	.01690	.75420	.45420	1.61620
2.990	28.840	.94750	-.03450	-.01070	-.00110	-.00030	.07210	.01710	.79510	.52030	1.52800
2.990	30.940	1.03950	-.03910	-.01200	-.00070	-.00060	.07090	.01750	.83490	.59530	1.43600
2.990	33.040	1.13200	-.04300	-.01460	-.00010	-.00040	.06860	.01810	.91140	.67490	1.35040
2.990	35.160	1.22770	-.04740	-.01720	.00060	-.00110	.06710	.01830	.96490	.76200	1.26820
2.990	37.260	1.32250	-.05300	-.01790	.00050	-.00110	.06370	.01840	1.01360	.85160	1.19040
2.990	39.340	1.41520	-.05870	-.01990	.00150	-.00220	.06160	.01850	1.05350	.94490	1.11670
2.990	41.320	1.50440	-.06480	-.02010	.00100	-.00200	.05910	.01820	1.09080	1.03770	1.05120
GRADIENT		.04325	-.00208	-.00071	.00012	-.00010	-.00100	.00011	.02669	.03624	-.04022

RUN NO. 31/ 0 RV/L = 4.91 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CH	CLM	CT	CYN	CEL	CA	CAS	CL	CD	L/D
4.999	20.230	.50370	-.01620	-.00410	-.00090	-.00070	.06750	.00340	.44920	.23770	1.66920
4.999	22.200	.57850	-.01790	-.00490	-.00100	-.00070	.06690	.00360	.51030	.28040	1.61980
4.999	24.230	.66190	-.01750	-.00450	-.00080	-.00050	.06670	.00360	.57810	.33270	1.73120
4.999	26.330	.74960	-.02140	-.00620	-.00060	-.00060	.06540	.00360	.64260	.39110	1.64320
4.999	28.360	.83080	-.02360	-.00710	-.00090	-.00090	.06510	.00390	.69990	.45190	1.54870
4.999	30.420	.92270	-.02670	-.00990	-.00040	-.00140	.06380	.00400	.76330	.52230	1.46140
4.999	32.470	1.01160	-.03250	-.00990	-.00030	-.00140	.06180	.00410	.82020	.59530	1.37750
4.999	34.590	1.11190	-.03900	-.01120	-.00020	-.00160	.06160	.00410	.88060	.66170	1.29180
4.999	36.610	1.20630	-.04420	-.01370	-.00040	-.00170	.05990	.00390	.93400	.76690	1.21470
4.999	38.650	1.30160	-.04950	-.01350	-.00020	-.00160	.05960	.00370	.97920	.85960	1.13950
4.999	40.610	1.39390	-.05420	-.01390	-.00040	-.00160	.05900	.00350	1.01960	.93220	1.07070
4.999	42.450	.92320	-.02700	-.00690	-.00100	-.00150	.06320	.00380	.76410	.52200	1.46370
GRADIENT		.04390	-.00195	-.00055	.00004	-.00006	-.00045	.00001	.02640	.03516	-.04102

DATE 29 SEP 75 TABULATED SOURCE DATA - NSFC TWT 574

NSFC 574 (0448) ORS 1398

(067026) (18 JUL 75)

REFERENCE DATA

SREF = 2890.0000 58.17. XMRP = 836.7000 IN.
 LREF = 474.8000 IN. YMRP = .0000 IN.
 SREF = 236.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 ATLRON = .000 BCLAP = -14.250
 SPOROK = 999.990

RUN NO. 55/ 0 RW/L = 4.90 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	CH	CLM	CY	CYN	CLL	CA	CAS	CL	CD	L/O
4.929	40.380	-0.06110	-0.03980	-0.00600	-0.00940	.06130	.00240	1.00340	.93440	1.07360
4.929	42.310	-0.06530	-0.03930	-0.00600	-0.00940	.06030	.00260	1.00910	1.02790	1.01180
4.929	44.370	-0.07320	-0.04050	-0.00650	-0.00960	.05880	.00250	1.07240	1.13140	.94760
4.929	46.410	-0.08030	-0.04100	-0.00610	-0.00960	.05610	.00240	1.09740	1.23710	.88700
4.929	48.440	-0.08640	-0.04080	-0.00620	-0.00940	.05470	.00230	1.11630	1.34490	.83000
4.929	50.480	-0.09350	-0.04120	-0.00580	-0.00920	.05420	.00200	1.12850	1.45110	.77630
4.929	52.510	-0.09610	-0.04160	-0.00690	-0.00910	.05270	.00180	1.12480	1.55330	.72400
4.929	54.570	-0.09670	-0.04220	-0.00600	-0.00700	.05170	.00190	1.10740	1.64600	.67270
4.929	56.570	-0.08290	-0.04260	-0.00530	-0.00770	.04990	.00140	1.08250	1.73100	.62330
4.929	58.600	-0.07630	-0.04300	-0.00510	-0.00660	.04770	.00110	1.05110	1.81410	.57940
4.929	60.520	-0.07460	-0.04320	-0.00550	-0.00610	.04520	.00080	1.01200	1.88240	.53760
4.929	62.460	-0.06440	-0.04120	-0.00600	-0.00630	.03480	.00170	1.12620	1.45160	.77580
4.929	64.400	-0.00076	-0.00019	-0.00004	.00011	-.00076	-.00009	.00066	.04809	-.02653

GRADIENT

DATE 28 SEP 73

(187027) (18 JUL 73)

TABULATED SOURCE DATA - HSPC TMT 574
HSPC 574 (0A48) ORB 1598

REFERENCE DATA

SREF = 2880.0000 88. FT. WARP = 636.7000 IN.
LREF = 474.9000 IN. YARP = .0000 IN.
BREF = 936.7000 IN. ZARP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
ATTORN = .000 BOFLAP = 13.750
SPDRK = 999.990

RUN NO. 86/ 2 RUN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CN	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
.982	-1.470	-0.01210	.01030	-0.01210	.00230	.00100	.08590	.03520	-.01130	.06600	-1.17530
.982	1.490	.08360	.00870	-0.01440	.00230	.00060	.06370	.03430	.08210	.06980	1.24690
.982	3.800	.18880	.00410	-0.01630	.00230	.00010	.05790	.03430	.18480	.06980	2.63300
.982	5.670	.29300	.00370	-0.01920	.00240	-.00030	.04940	.03430	.28870	.07810	3.68820
.982	7.790	.40330	.00140	-0.02030	.00260	-.00090	.03890	.03430	.39430	.09290	4.24510
.982	9.800	.52360	-.00350	-0.02090	.00240	-.00050	.02970	.03430	.51070	.11930	4.28010
.982	12.000	.64340	-.01360	-0.02200	.00210	-.00160	.03170	.03560	.62280	.16480	3.77750
.982	14.120	.74730	-.01560	-0.02590	.00370	-.00150	.03330	.03680	.71650	.21480	3.33630
.982	16.200	.86880	-.02120	-0.03120	.00410	-.00170	.03590	.04080	.82400	.27890	2.97800
.982	18.330	1.02820	-.03250	-0.03560	.00460	-.00330	.03120	.04680	.96420	.35240	2.73550
.982	20.370	1.18100	-.04900	-0.03510	.00420	-.00180	.03040	.05210	1.09850	.43980	2.49400
.982	9.910	.58360	-.00310	-0.02060	.00250	-.00060	.03000	.03510	.51090	.11970	4.28500
GRADIENT		.04937	-.00152	-.00096	-.00005	-.00022	-.00196	-.00017	.04824	.00090	.69455

RUN NO. 87/ 0 RUN/L = 6.19 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CN	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
.884	-1.500	-.02710	.02230	-0.02060	.00350	.00140	.07690	.03750	-.02640	.07710	-1.34300
.884	1.570	.09020	.01430	-0.01930	.00280	.00150	.07740	.03750	.08800	.07990	1.10170
.884	3.780	.21220	.00220	-0.02210	.00330	.00110	.07820	.03770	.20860	.09200	2.24510
.884	5.910	.33250	-.01280	-0.02410	.00320	.00010	.07910	.03600	.32260	.11290	2.65550
.884	8.100	.45420	-.02830	-0.02520	.00360	-.00130	.07990	.04020	.43640	.14310	3.08230
.884	10.270	.57150	-.04120	-0.02600	.00390	-.00200	.07940	.04030	.54820	.18000	3.04440
.884	12.450	.70510	-.05460	-0.02730	.00290	-.00210	.07900	.04160	.67150	.22930	2.92830
.884	14.880	.84480	-.07000	-0.03000	.00390	-.00390	.08240	.04670	.79810	.29380	2.70900
.884	16.840	.97480	-.08030	-0.03240	.00310	-.00350	.08340	.05210	.90860	.36230	2.50760
.884	19.020	1.09250	-.09030	-0.03120	.00120	-.00320	.08510	.05900	1.00510	.43660	2.30180
.884	21.070	1.17730	-.07190	-0.02860	.00000	-.00460	.08900	.06370	1.06640	.50650	2.10310
.884	10.270	.57820	-.04030	-0.02760	.00360	-.00220	.07830	.04020	.55290	.17990	3.07350
GRADIENT		.05617	-.00473	-.00036	.00000	-.00007	.00731	.00005	.05469	.00352	.60671

DATE 29 SEP 73

TABULATED SOURCE DATA - MSFC TMT 574

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MSFC 574 (0448) CRB 1968

(087027) (10 JUL 73)

REFERENCE DATA

SREP = 2880.0000 84.PT. XREP = 836.7000 IN.
 LREP = 474.0000 IN. YREP = .0000 IN.
 BREP = 936.7000 IN. ZREP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 AIRSON = .000 BOPLAP = 13.750
 SPORNA = 999.990

RUN NO. 66/ 0 RVL = 6.61 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CT	CYN	CL	CA	CAB	CL	CD	L/D
1.195	-1.360	.00210	.01340	-.01680	.00370	.00050	.18110	.06410	.03330	.18090	.18430
1.195	1.700	.18810	-.01260	-.01900	.00360	.00050	.18010	.06250	.18070	.18500	.06640
1.195	3.840	.30380	-.04570	-.01950	.00390	.00030	.17860	.06350	.28020	.19850	1.45660
1.195	6.140	.43300	-.06860	-.02140	.00360	.00020	.17600	.06350	.41360	.22190	1.88720
1.195	8.370	.55530	-.08110	-.02100	.00330	-.00110	.17290	.06490	.52420	.25180	2.06350
1.195	10.600	.68380	-.08440	-.02290	.00470	.00010	.17070	.06640	.64200	.29400	2.18390
1.195	12.850	.82370	-.11480	-.02930	.00560	.00070	.16810	.06900	.76550	.34800	2.19930
1.195	15.100	.95600	-.13070	-.02890	.00370	-.00140	.16610	.07200	.86110	.41200	2.13640
1.195	17.290	1.07480	-.14290	-.02650	.00290	-.00210	.16390	.07460	.97660	.47820	2.04190
1.195	19.480	1.17800	-.14390	-.02600	.00210	-.00180	.16340	.07930	1.05530	.54900	1.92200
1.195	21.560	1.27470	-.14290	-.02710	.00150	-.00210	.16360	.08280	1.12510	.62100	1.81160
1.195	10.680	.88180	-.09690	-.02760	.00380	.00080	.16890	.06660	.64660	.29450	2.20230
1.195	GRADIENT	.08273	-.01368	-.00060	.00005	-.00005	-.00053	-.00015	.09945	.00426	.29411

RUN NO. 63/ 0 RVL = 6.55 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CT	CYN	CL	CA	CAB	CL	CD	L/D
1.951	-1.530	-.02260	-.00670	-.01410	.00210	.00010	.14760	.03800	-.02240	.14790	-.13500
1.951	1.510	.08240	-.01690	-.01480	.00220	-.00010	.14820	.03390	.05660	.14760	.39630
1.951	3.700	.19530	-.03230	-.01470	.00240	-.00020	.14530	.03420	.14950	.15700	.93890
1.951	5.890	.25190	-.04620	-.01590	.00200	-.00030	.14450	.03450	.23570	.16960	1.39000
1.951	8.080	.34480	-.05750	-.01670	.00200	-.00020	.14160	.03320	.32120	.18670	1.70220
1.951	10.260	.43710	-.06490	-.01760	.00190	-.00040	.13750	.03240	.40560	.21300	1.90390
1.951	12.440	.51640	-.06790	-.01790	.00190	-.00070	.13000	.03170	.47820	.25060	2.00350
1.951	14.640	.60670	-.07260	-.01870	.00170	-.00060	.12510	.03340	.55530	.27440	2.08320
1.951	16.860	.71270	-.08120	-.01940	.00110	-.00110	.12310	.03490	.64570	.28660	1.97720
1.951	19.080	.81680	-.08880	-.01990	.00090	-.00110	.12310	.03600	.73150	.38310	1.90910
1.951	21.150	.91000	-.09570	-.01750	.00000	-.00090	.12050	.03590	.80510	.44090	1.82600
1.951	10.240	.48250	-.04160	-.01660	.00190	-.00070	.13290	.03160	.39510	.20650	1.91260
1.951	GRADIENT	.04234	-.00806	-.00014	.00007	-.00007	-.00054	.00052	.03969	.00170	.25777

DATE 20 SEP 73

TABULATED SOURCE DATA - NSFC TWT 374

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(R07027) (10 JUL 73)

NSFC 374 (0448) ORB 1398

REFERENCE DATA

SREF = 2000.0000 20.0 FT. XREF = 836.7000 IN.
 LREF = 474.8000 IN. YREF = .0000 IN.
 DREF = 956.7000 IN. ZREF = .0000 IN.
 SCALE = .0040

BETA = .000 ELEVTR = .000
 AIRLON = .000 BOFLAP = 13.750
 SPDRK = 999.990

PARAMETRIC DATA

RUN NO. 34/ 0 RVL = 4.07 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	-1.960	-0.04820	-0.02010	-0.00070	.00070	.00070	.11040	.01690	-.04710	.11090	-.42510
2.990	1.360	.00890	-.02120	-.00110	.00000	.00030	.10910	.01710	-.00420	.10920	.03900
2.990	3.450	.04330	-.02180	-.00020	-.00020	.00030	.10590	.01730	.05680	.10960	.51830
2.990	5.540	.12510	-.02310	-.00060	.00030	.00010	.10210	.01760	.11460	.11370	1.00790
2.990	7.610	.19040	-.02660	-.00110	.00000	.00020	.09840	.01790	.17570	.12280	1.43050
2.990	9.690	.25660	-.02960	-.00160	-.00010	.00000	.09550	.01740	.25690	.13730	1.72470
2.990	11.760	.32800	-.03170	-.00140	.00010	.00000	.09350	.01700	.30200	.15840	1.90630
2.990	13.860	.40060	-.03560	-.00210	.00000	.00010	.09200	.01790	.36710	.18530	1.98040
2.990	15.950	.47560	-.04000	-.00240	-.00010	.00000	.09040	.01740	.43240	.21760	1.98730
2.990	18.000	.55390	-.04460	-.00270	.00000	.00020	.08860	.01760	.49940	.25550	1.95460
2.990	19.960	.63250	-.04920	-.00340	.00000	.00000	.08640	.01730	.56490	.29740	1.89940
2.990	9.690	.26270	-.02610	-.00060	.00020	.00000	.09540	.01730	.24290	.13830	1.75560
GRADIENT		.02760	-.00042	.00013	-.00022	-.00010	-.00113	.00010	.02591	-.00032	.23524

RUN NO. 35/ 0 RVL = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.999	-1.960	-.02500	-.02970	.00170	.00120	.00040	.08700	.01350	-.05210	.08750	-.59550
4.999	1.360	-.01630	-.02960	-.00100	.00060	.00010	.08370	.00370	-.01820	.08320	-.21960
4.999	3.360	.02640	-.02730	.00140	.00080	.00030	.08220	.00380	.02150	.08360	.23740
4.999	5.460	.07340	-.02500	.00040	.00090	.00040	.07840	.00380	.06560	.08500	.77140
4.999	7.490	.12420	-.02810	.00010	.00010	.00000	.07510	.00370	.11340	.09160	1.25070
4.999	9.530	.18050	-.02790	-.00020	.00060	-.00020	.07440	.00380	.16550	.10320	1.60320
4.999	11.590	.23640	-.02610	.00050	.00050	.00000	.07220	.00390	.21900	.11670	1.84540
4.999	13.640	.29650	-.02920	-.00050	.00030	-.00030	.07110	.00380	.27320	.13930	1.95850
4.999	15.690	.37200	-.03430	-.00200	.00000	-.00060	.07030	.00390	.33910	.16830	2.01410
4.999	17.730	.44290	-.03780	-.00270	.00030	-.00060	.06920	.00390	.40070	.20090	1.99450
4.999	19.720	.51670	-.04070	-.00200	.00040	-.00050	.06980	.00380	.46280	.24020	1.92680
4.999	9.530	.16130	-.02620	.00030	.00060	-.00010	.07400	.00390	.16650	.10300	1.61640
GRADIENT		.02011	-.00061	-.00006	-.00010	-.00002	-.00121	.00008	.01864	-.00098	.21611

DATE 28 SEP 73

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TABULATED SOURCE DATA - NSFC TMT 574

NSFC 574 (0448) ORB 1398

(R87028) (18 JUL 73)

REFERENCE DATA

SREF = 2880.0000 88. FT. XREF = 836.7000 IN.
 LREF = 474.8000 IN. YREF = .0000 IN.
 SREF = 936.7000 IN. ZREF = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 ALLCON = .000 BOFLAP = 13.750
 SPOBRK = 999.990

RUN NO. 37/ 0 RUL = 4.06 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	ON	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
2.990	20.530	.63670	-.09030	-.00430	-.00040	-.00030	.06760	.01760	.56350	.50350	1.85080
2.990	22.530	.71770	-.09620	-.00930	-.00070	-.00040	.06690	.01770	.62950	.39350	1.77160
2.990	24.530	.80230	-.06430	-.00930	-.00110	-.00040	.06480	.01710	.68410	.41110	1.68810
2.990	26.530	.88480	-.07160	-.00970	-.00090	-.00030	.06490	.01720	.76060	.47830	1.59060
2.990	28.530	.96650	-.07800	-.01130	-.00060	-.00030	.06350	.01690	.82370	.54920	1.49980
2.990	30.530	1.04820	-.08670	-.01210	-.00060	-.00030	.06230	.01710	.88230	.62770	1.41070
2.990	32.530	1.12730	-.09400	-.01590	.00000	-.00100	.06130	.01740	.94230	.71030	1.32690
2.990	34.530	1.27830	-.10220	-.01740	.00060	-.00160	.06040	.01760	.99820	.80290	1.24300
2.990	37.310	1.37480	-.11150	-.01860	.00050	-.00190	.07820	.01780	1.04380	.89340	1.16790
2.990	39.410	1.47170	-.11980	-.02020	.00140	-.00210	.07660	.01760	1.06620	.99360	1.09500
2.990	41.400	1.56380	-.12930	-.02040	.00050	-.00200	.07520	.01720	1.12310	1.09080	1.02960
2.990	30.990	1.06620	-.08560	-.01280	-.00060	-.00060	.06270	.01710	.88990	.62960	1.41180
2.990	GRADIENT	.04471	-.00970	-.00066	.00009	-.00010	-.00037	.00000	.02713	.03786	-.04000

RUN NO. 36/ 0 RUL = 4.90 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	ON	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
4.938	20.530	.52680	-.04190	-.00580	-.00020	-.00100	.07170	.00350	.48930	.24940	1.86150
4.938	22.130	.60420	-.04960	-.00640	-.00020	-.00120	.07200	.00350	.53240	.29460	1.80720
4.938	24.210	.68980	-.05090	-.00610	-.00020	-.00110	.07200	.00350	.59930	.34860	1.71930
4.938	26.310	.78100	-.05670	-.00840	-.00020	-.00270	.07170	.00350	.66630	.41040	1.62810
4.938	28.360	.87330	-.06540	-.01030	-.00060	-.00100	.07220	.00370	.73410	.47850	1.53400
4.938	30.420	.96680	-.07230	-.01010	-.00040	-.00120	.07250	.00360	.79590	.55210	1.44320
4.938	32.500	1.06710	-.07930	-.01260	.00010	-.00160	.07210	.00350	.86110	.63430	1.35760
4.938	34.600	1.17050	-.09200	-.01190	.00010	-.00180	.07260	.00340	.92210	.72460	1.27240
4.938	36.660	1.28940	-.09660	-.01380	.00010	-.00190	.07230	.00330	.97490	.81610	1.19450
4.938	38.720	1.36190	-.10650	-.01490	.00040	-.00150	.07280	.00310	1.01690	.90860	1.11890
4.938	40.700	1.46240	-.11570	-.01610	.00050	-.00160	.07370	.00300	1.06040	1.00970	1.03020
4.938	30.420	.97180	-.07100	-.00950	-.00010	-.00120	.07290	.00340	.80050	.55470	1.44300
4.938	GRADIENT	.04997	-.00363	-.00032	-.00000	-.00002	.00007	-.00002	.02933	.03726	-.04135

DATE 28 SEP 73

TABULATED SOURCE DATA - NSFC TWT 574

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NSFC 574 (0448) CRB 1358

(R07029) (18 JUL 73)

REFERENCE DATA

SREF = 2890.0000 98.471. XREF = 838.7000 IN.
 LREF = 474.8000 IN. YREF = .0000 IN.
 BREF = 936.7000 IN. ZREF = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 ATLON = .000 BDFLAP = 13.750
 SPDRK = 999.990

RUN NO. 52/ 0 RNVL = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLN	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.999	40.360	1.42790	-1.12330	-0.03990	-0.00630	-0.00900	.08000	.00060	1.03570	.98620	1.03010
4.999	42.300	1.32330	-1.13500	-0.03970	-0.00630	-0.00930	.07910	.00090	1.07530	1.08380	.93020
4.999	44.300	1.62180	-1.10030	-0.03960	-0.00620	-0.00960	.07770	.00170	1.10470	1.18980	.92840
4.999	46.400	1.71930	-1.15440	-0.03970	-0.00670	-0.00990	.07990	.00190	1.12770	1.30020	.86730
4.999	48.490	1.81540	-1.16390	-0.03960	-0.00610	-0.00940	.07960	.00210	1.14410	1.41170	.81050
4.999	50.470	1.90810	-1.17280	-0.04190	-0.00390	-0.00840	.07910	.00200	1.15210	1.52050	.75760
4.999	52.510	1.99280	-1.17420	-0.04170	-0.00610	-0.00830	.07790	.00200	1.15100	1.62860	.70670
4.999	54.580	2.05990	-1.16430	-0.04230	-0.00580	-0.00740	.07220	.00210	1.13320	1.71690	.66000
4.999	56.570	2.11970	-1.16260	-0.04280	-0.00520	-0.00780	.07340	.00200	1.10590	1.80870	.61140
4.999	58.590	2.16990	-1.15140	-0.04120	-0.00500	-0.00810	.07050	.00180	1.07030	1.88890	.56660
4.999	60.580	2.21370	-1.14640	-0.04150	-0.00520	-0.00790	.06820	.00110	1.02990	1.96070	.52520
4.999	50.470	1.90910	-1.17140	-0.04130	-0.00570	-0.00850	.07920	.00210	1.15380	1.52300	.75750
GRADIENT		.03978	-.00181	-.00019	.00007	.00011	-.00055	.00003	-.00007	.04936	-.02596

NSFC 574 (0448) CRB 1358

(R07030) (18 JUL 73)

REFERENCE DATA

SREF = 2890.0000 98.471. XREF = 838.7000 IN.
 LREF = 474.8000 IN. YREF = .0000 IN.
 BREF = 936.7000 IN. ZREF = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 ATLON = .000 BDFLAP = .000
 SPDRK = 999.990

RUN NO. 51/ 0 RNVL = 4.97 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLN	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.999	40.360	1.36800	-1.06130	-0.03780	-0.00530	-0.00890	.06170	.00090	1.01710	.94650	1.07450
4.999	42.300	1.48190	-1.08850	-0.03820	-0.00600	-0.00910	.06220	.00110	1.05550	1.04390	1.00910
4.999	44.300	1.57940	-1.09680	-0.03740	-0.00630	-0.00960	.06230	.00080	1.08540	1.14900	.94460
4.999	46.400	1.67990	-1.08300	-0.03650	-0.00610	-0.00950	.06230	.00090	1.11040	1.25670	.88350
4.999	48.440	1.77310	-1.11790	-0.03830	-0.00630	-0.00950	.06050	.00090	1.13080	1.36700	.82720
4.999	50.470	1.86340	-1.12470	-0.03880	-0.00600	-0.00890	.05950	.00100	1.13990	1.47530	.77260
4.999	52.510	1.94950	-1.12420	-0.03660	-0.00620	-0.00820	.05810	.00090	1.14020	1.56240	.72050
4.999	54.580	2.01380	-1.11750	-0.03720	-0.00710	-0.00710	.05690	.00130	1.12090	1.67370	.66970
4.999	56.570	2.07120	-1.14000	-0.03690	-0.00560	-0.00790	.05410	.00120	1.09570	1.75850	.62310
4.999	58.600	2.12810	-1.09910	-0.04000	-0.00520	-0.00800	.05260	.00110	1.06270	1.84220	.57600
4.999	60.590	2.16750	-1.10530	-0.03950	-0.00550	-0.00800	.05060	.00090	1.02310	1.91150	.53520
4.999	50.480	1.86480	-1.12330	-0.03880	-0.00590	-0.00820	.05950	.00090	1.14070	1.47640	.77260
GRADIENT		.03954	-.00123	-.00013	.00001	.00001	-.00059	.00001	.00059	.04895	-.02661

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TABULATED SOURCE DATA - NSFC TWT 574

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NSFC 574 (0448) CR8 1598 W/ALT NOSE

(087031) (18 JUL 73)

REFERENCE DATA

REF = 2990.0000 86. FT. XRRP = 838.7000 IN.
 LREF = 474.6000 IN. YRRP = .0000 IN.
 BREF = 936.7000 IN. ZRRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 ALLRON = .000 BOFLAP = .000
 SPDRK = 999.990

RUN NO. 106/ 0 RV/L = 5.00 GRADIENT INTERVAL = -5.00/ 5.00

NACH	ALPHA	CN	CLM	CY	CYN	CSL	CA	CAB	CL	CD	L/D
.808	-1.500	-.03180	.04370	-.01180	.00240	.00100	.05680	.02680	-.05130	.05680	-.90600
.806	1.480	.04350	.04380	-.01310	.00230	.00110	.05480	.02750	.04210	.05990	.73200
.806	3.600	1.4690	.04260	-.01610	.00250	.00120	.04680	.02680	.14560	.05790	2.51250
.806	5.890	.24570	.04150	-.01710	.00260	.00120	.03970	.02090	.24060	.06390	3.76440
.806	7.820	.34350	.03720	-.02040	.00250	.00040	.02970	.02790	.35620	.07790	4.57130
.806	9.910	.46460	.03070	-.02180	.00200	.00090	.02040	.02920	.47590	.10360	4.57500
.806	12.010	.60250	.02220	-.02210	.00190	-.00080	.02300	.03170	.56390	.14990	3.89440
.806	14.140	.71860	.01990	-.02720	.00320	-.00130	.02810	.03480	.66990	.20260	3.40120
.806	16.240	.83040	.00860	-.03110	.00410	-.00150	.03170	.03940	.76640	.26260	3.00150
.806	18.380	.92530	-.00230	-.03520	.00410	-.00210	.02590	.04160	.93660	.33820	2.76910
.806	20.360	1.15310	-.00890	-.03640	.00420	-.00300	.02200	.04620	1.05450	.41330	2.53660
.806	9.910	.46400	.03170	-.01900	.00170	.00100	.02190	.02990	.47500	.10450	4.52310
GRADIENT		.04696	-.00075	-.00110	.00003	.00005	-.00187	-.00049	.04603	.00032	.63374

RUN NO. 105/ 0 RV/L = 6.24 GRADIENT INTERVAL = -5.00/ 5.00

NACH	ALPHA	CN	CLM	CY	CYN	CSL	CA	CAB	CL	CD	L/D
.808	-1.510	-.07440	.06650	-.01920	.00470	.00150	.06710	.02650	-.07360	.06780	-1.06660
.806	1.530	.04180	.05740	-.02280	.00460	.00120	.06680	.02680	.04000	.06770	.59120
.806	3.750	.16990	.04610	-.02300	.00450	.00180	.06620	.02900	.16510	.07920	2.06240
.806	5.920	.26560	.03320	-.02430	.00440	.00100	.06790	.02950	.27700	.09710	2.83330
.806	8.090	.40270	.02040	-.02710	.00420	-.00050	.06830	.03110	.36910	.12430	3.12990
.806	10.270	.53000	.00620	-.02940	.00470	-.00180	.06840	.03370	.50930	.16190	3.14540
.806	12.480	.66550	-.00940	-.02840	.00320	-.00220	.06970	.03590	.63470	.21170	2.99710
.806	14.680	.79750	-.02040	-.03060	.00410	-.00430	.07100	.04120	.73340	.27090	2.76050
.806	16.880	.92530	-.02900	-.03230	.00390	-.00320	.07470	.04570	.86450	.33770	2.55990
.806	19.010	1.03780	-.02700	-.03130	.00270	-.00300	.07470	.05530	.95670	.40860	2.34010
.806	21.100	1.12430	-.00560	-.02690	.00010	-.00450	.08060	.06260	1.01960	.48020	2.12560
.806	10.270	.52780	.00660	-.02520	.00390	-.00140	.06700	.03230	.50740	.16010	3.16640
GRADIENT		.05756	-.00479	-.00072	-.00005	.00007	.00026	.00012	.05609	.00270	.74361

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 TABULATED SOURCE DATA - MSFC TWT 574
 MSFC 574(0A48) ORB 1998 W/ALT NOSE

(R07031) (18 JUL 75)

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 AIRLON = .000 BOFLAP = .000
 SPDBRK = 999.990

REFERENCE DATA

SKEW = 2890.0000 96.47.
 LREF = 474.8000 IN.
 SREF = 936.7000 IN.
 SCALE = .0040

RUN NO. 104/ 0 RVL = 6.65 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
1.195	-1.360	.01690	.04420	-.01680	.00410	.00090	.16730	.05610	.01790	.16720	.10730
1.195	1.720	.14840	.01530	-.01880	.00410	.00030	.16630	.05570	.14330	.17070	.03990
1.195	3.960	.28370	-.01190	-.01980	.00420	-.00010	.16420	.05320	.27160	.18340	1.46070
1.195	6.180	.41190	-.03160	-.02080	.00420	.00010	.16070	.05600	.39230	.20410	1.92130
1.195	8.390	.53130	-.04210	-.02110	.00380	-.00080	.15710	.05760	.50270	.23300	2.15660
1.195	10.620	.66230	-.05730	-.02850	.00360	.00150	.15420	.06030	.62220	.27360	2.27380
1.195	12.680	.80100	-.07700	-.02600	.00300	.00130	.15330	.06420	.74670	.32780	2.27780
1.195	15.110	.93260	-.09240	-.02640	.00360	-.00100	.15150	.06740	.86180	.38950	2.20960
1.195	17.320	1.04940	-.10290	-.02740	.00310	-.00160	.14820	.07510	.93760	.45410	2.10890
1.195	19.500	1.15440	-.10420	-.02840	.00330	-.00180	.14490	.07620	1.03670	.52320	1.97740
1.195	21.590	1.24870	-.10320	-.02850	.00280	-.00140	.14490	.07620	1.10710	.59410	1.86340
1.195	10.630	.66550	-.05750	-.02830	.00620	.00200	.15410	.05930	.62560	.27430	2.28070
1.195	GRADIENT	.06174	-.01296	-.00074	.00002	-.00023	-.00072	-.00021	.03671	.00377	.31746

RUN NO. 163/ 0 RVL = 7.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
1.949	-1.450	.00400	.01600	-.01360	.00280	.00010	.13750	.03250	.00310	.13750	.03730
1.949	1.620	.08850	.00430	-.01410	.00270	.00020	.13480	.03240	.08470	.13730	.61660
1.949	3.790	.17470	-.00680	-.01400	.00250	-.00010	.13110	.03130	.16370	.14240	1.16310
1.949	5.990	.27360	-.01840	-.01400	.00190	.00020	.13170	.03050	.25650	.15960	1.61950
1.949	8.150	.35930	-.02500	-.01470	.00180	-.00030	.12840	.03040	.53740	.17800	1.69490
1.949	10.340	.44270	-.02950	-.01540	.00170	-.00070	.12360	.03190	.41330	.20110	2.05490
1.949	12.530	.52190	-.03250	-.01520	.00150	-.00080	.11670	.03280	.48410	.22720	2.13020
1.949	14.700	.61990	-.03710	-.01640	.00130	-.00090	.11650	.03340	.57000	.27010	2.11060
1.949	16.970	.72600	-.04350	-.01610	.00060	-.00090	.11530	.03580	.66070	.32220	2.05070
1.949	19.170	.82280	-.04980	-.01530	-.00040	-.00080	.11260	.03670	.74020	.37670	1.96480
1.949	21.250	.91680	-.05640	-.01480	-.00100	-.00070	.11000	.03670	.81570	.43540	1.87330
1.949	10.740	.44040	-.02850	-.01560	.00180	-.00070	.12230	.03200	.41130	.19940	2.06240
1.949	GRADIENT	.04026	-.00538	-.00009	-.00007	-.00005	-.00151	-.00024	.03767	.00117	-.26541

NSFC 574 (M48) ORB 1398 W/ALT NOSE

(R67031) (10 JUL 73)

REFERENCE DATA

SRIF = 2090.7000 84.17. XPRP = 836.7000 IN.
 LREF = 474.8000 IN. YPRP = .0000 IN.
 BRIF = 934.7000 IN. ZPRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 AIRRON = .000 BOFLAP = .000
 SPDRK = 999.990

RUN NO. 142/ 0 RV/L = 4.11 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	-1.510	-1.02260	.00130	-.01060	.00170	.00000	.10500	.01690	-.02160	.10580	-.20590
2.990	1.480	.03340	.00160	-.00930	.00160	.00000	.10340	.01740	.03080	.10430	.29560
2.990	3.530	.08200	.00130	-.00930	.00130	-.00020	.10040	.01770	.06560	.10590	.80630
2.990	5.990	.13240	.00010	-.00970	.00110	-.00030	.09660	.01790	.14230	.11100	1.28100
2.990	7.660	.21760	-.00300	-.01100	.00090	-.00040	.09360	.01760	.20330	.12210	1.66320
2.990	9.740	.28580	-.00440	-.01120	.00070	-.00070	.09060	.01770	.26640	.13760	1.93500
2.990	11.610	.35300	-.00610	-.01130	.00030	-.00100	.08930	.01800	.32910	.16030	2.05310
2.990	13.910	.42090	-.00820	-.01200	.00010	-.00100	.08830	.01790	.39320	.18640	2.08640
2.990	15.890	.49920	-.01060	-.01220	.00020	-.00140	.08530	.01800	.45630	.21970	2.07630
2.990	18.050	.57710	-.01390	-.01020	-.00070	-.00110	.08390	.01790	.52260	.25060	2.02060
2.990	20.030	.65370	-.01670	-.01090	-.00150	-.00090	.08200	.01790	.56600	.30100	1.94650
2.990	9.740	.29080	-.00360	-.01090	.00070	-.00060	.09060	.01770	.27120	.13870	1.93500
GRADIENT		.08637	-.00005	.00032	-.00010	-.00005	-.00114	.00020	.02653	.00016	.25101

RUN NO. 141/ 0 RV/L = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.999	-1.520	-.03370	-.01330	-.00690	.00190	.00020	.08060	.00460	-.03300	.08090	-.40790
4.999	1.440	.00680	-.01220	-.00770	.00140	.00000	.07770	.00470	.00690	.07790	.08690
4.999	3.430	.04890	-.01100	-.00850	.00130	-.00030	.07630	.00460	.04420	.07310	.55920
4.999	5.480	.09350	-.00470	-.00810	.00080	-.00060	.07210	.00480	.08620	.08070	1.06830
4.999	7.320	.14360	-.00490	-.00780	.00070	-.00100	.07090	.00500	.13310	.08910	1.49440
4.999	9.530	.19700	-.00420	-.00680	.00020	-.00080	.06950	.00480	.18270	.10130	1.80410
4.999	11.590	.23560	-.00500	-.00630	.00000	-.00090	.06880	.00490	.23060	.11860	1.99110
4.999	13.680	.31880	-.00610	-.00790	-.00010	-.00130	.06810	.00480	.29370	.14140	2.07640
4.999	15.690	.36420	-.00550	-.00650	.00000	-.00130	.06810	.00480	.35130	.16960	2.07220
4.999	17.740	.43390	-.00630	-.00650	.00000	-.00120	.06810	.00480	.41180	.20320	2.02540
4.999	19.690	.52670	-.00960	-.00590	-.00030	-.00140	.06810	.00480	.47300	.24160	1.95740
4.999	9.560	.20110	-.00330	-.00630	.00060	.00040	.07700	.00490	.18670	.10240	1.82230
GRADIENT		.02060	.00058	.00010	-.00010	-.00013	-.00106	.00015	.01944	-.00045	.24356

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TABULATED SOURCE DATA - NSFC TWT 374

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NSFC 574 (0448) CRB 1398 W/ALT NOSE

(R07032) (10 JUL 73)

REFERENCE DAT/

SRF = 2890.0000 SE.FT. XMRP = 836.7000 IN.
 LREF = 474.8000 IN. YMRP = .0000 IN.
 BRIF = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 ATURON = .070 BDFLAP = .000
 SPDBRK = 999.990

RUN NO. 107/ 0 RN/L = 4.94 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.596	20.990	1.14000	-.00980	-.04100	.00510	-.00220	.02240	.04580	1.05650	.42860	2.46480
.596	22.940	1.22320	-.00290	-.04410	.00430	.00100	.02240	.03170	1.11770	.49750	2.24860
.596	24.970	1.19940	-.03400	-.03260	.00250	-.00660	.02710	.06360	1.07570	.53110	2.02550
.596	26.910	1.10430	-.09240	-.02670	.00560	-.01860	.04200	.06980	.96580	.53750	1.79680
.596	28.910	1.06680	-.10800	-.02920	-.00760	-.00330	.04760	.07750	.92830	.56720	1.63670
.596	30.980	1.16430	-.10090	-.02770	-.00070	-.00330	.04520	.07820	.97530	.63610	1.52780
.596	33.050	1.25210	-.09640	-.02800	-.00130	-.00430	.03900	.07940	1.02820	.71570	1.43660
.596	35.130	1.31980	-.09480	-.01750	-.00140	-.00840	.03650	.08230	1.05810	.78980	1.33960
.596	37.220	1.42260	-.08120	-.01970	.00260	-.00800	.03410	.08770	1.11210	.80780	1.25260
.596	39.290	1.50190	-.09950	-.01640	-.00320	-.00800	.02630	.09070	1.14570	.97150	1.17930
.596	41.240	1.54650	-.10900	-.03530	-.00160	-.00230	.02000	.09290	1.14960	1.03460	1.11110
.596	30.990	1.16270	-.10370	-.03000	-.00170	-.00400	.04530	.07920	.97340	.63760	1.52640
.596	.01980	.01980	.00468	.00092	-.00035	-.00009	.00001	.00216	.00443	.02971	-.06440

GRADIENT

RUN NO. 139/ 0 RN/L = 4.09 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	20.620	.65820	-.01830	-.01260	-.00220	-.00110	.08330	.01830	.58660	.30980	1.89350
2.990	22.620	.73990	-.02260	-.01230	-.00290	-.00270	.08270	.01870	.65040	.35990	1.80690
2.990	24.710	.82350	-.02860	-.01270	-.00330	-.00070	.08120	.01910	.71400	.41810	1.70760
2.990	26.810	.91470	-.03340	-.01330	-.00340	-.00090	.07930	.01910	.78060	.48740	1.61470
2.990	28.900	1.00710	-.04150	-.01510	-.00380	-.00130	.07830	.01930	.84370	.55540	1.51900
2.950	31.070	1.10150	-.04670	-.01840	-.00320	-.00170	.07690	.01910	.90440	.63340	1.42770
2.990	33.100	1.19500	-.05530	-.02280	-.00310	-.00330	.07520	.01920	.95990	.71570	1.34110
2.990	35.220	1.29210	-.06280	-.02190	-.00300	-.00330	.07390	.01920	1.01280	.80570	1.25700
2.990	37.320	1.39820	-.07150	-.02370	-.00390	-.00390	.07230	.01900	1.06910	.89920	1.17890
2.990	39.400	1.48290	-.07810	-.00640	-.00350	-.00350	.07100	.01890	1.10070	.99620	1.10490
2.990	41.390	1.57610	-.08900	-.02410	-.00380	-.00380	.07000	.01890	1.13590	1.09470	1.03760
2.990	31.010	1.10720	-.04690	-.01810	-.00220	-.00170	.07660	.01910	.90940	.63620	1.42940
2.990	.04439	.04439	-.00336	-.00043	.00016	-.00019	-.00066	.00002	.02683	.03793	-.04163

GRADIENT

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TABULATED SOURCE DATA - MSFC TWT 574

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MSFC 574 (0448) ORB 1398 WALT NOSE

(16 JUL 73)

REFERENCE DATA

SRZF = 2890.0000 28.1 FT. XPRP = 838.7000 IN.
 LRZF = 474.8000 IN. YPRP = .0000 IN.
 BRZF = 936.7000 IN. ZPRP = .0000 IN.
 SCALE = .0040

BETA = .000 ELEVTR = .000
 ALLRON = .000 BDFLAP = .000
 SPDRK = 999.990

PARAMETRIC DATA

RUN NO. 130/ 0 RNU/L = 4.94 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAG	CL	CD	L/D
4.999	20.280	.84310	-.01140	-.00900	-.00200	-.00190	.06970	.00750	.48720	.25420	1.91650
4.999	22.240	.81480	-.01530	-.00340	-.00290	-.00070	.07090	.00450	.54200	.29430	1.81630
4.999	24.270	.89570	-.01560	-.00670	-.00310	-.00290	.07100	.00460	.60490	.30960	1.72430
4.999	26.330	.78410	-.01830	-.00900	-.00220	-.00100	.07140	.00460	.67100	.41180	1.62920
4.999	28.390	.87130	-.02250	-.01070	-.00210	-.00110	.07180	.00470	.73240	.47750	1.53380
4.999	30.440	.96530	-.02960	-.01250	-.00190	-.00120	.07190	.00490	.79600	.55060	1.44580
4.999	32.500	1.06240	-.03340	-.01430	-.00120	-.00160	.07070	.00490	.85790	.63060	1.36030
4.999	34.610	1.16210	-.04060	-.00670	-.00120	-.00160	.07140	.00460	.91590	.71690	1.27390
4.999	36.640	1.25920	-.04990	-.01600	-.00060	-.00180	.07140	.00460	.96760	.80900	1.19600
4.999	38.700	1.35480	-.05600	-.01990	-.00140	-.00160	.07060	.00460	1.01300	.90240	1.12230
4.999	40.640	1.45060	-.06200	-.01640	-.00160	-.00130	.07040	.00450	1.05480	.99830	1.05630
4.999	50.430	.97070	-.02840	-.01470	-.00230	-.00060	.07170	.00470	.80040	.53360	1.44510
4.999	GRADIENT	.04490	-.00263	-.00039	.00007	-.00002	.00001	.00001	.02849	.03671	-.04232

(R07033) (10 JUL 75)

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TABULATED SOURCE DATA - NSFC TWT 574
NSFC 574 (0448) USB 1398 W/ALT NOSE

PARAMETRIC DATA

ALPHA = .000 ELEVTR = .000
AILRON = .000 BDFLAP = .000
SPDRK = 999.990

REFERENCE DATA

REF = 8990.0000 SA.FT. WARP = 838.7000 IN.
LREF = 474.8000 IN. YWAP = .0000 IN.
REF = 938.7000 IN. ZWAP = .0000 IN.
SCALE = .0040

RUN NO. 127/ 0 RV/L = 5.02 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CH	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.609	-10.420	-.09530	.02960	.18630	-.01930	.00480	.04740	.03010	-.05470	.04810	-1.13740
.609	-8.490	-.06440	.03250	.15010	-.01540	.00490	.04990	.02960	-.06380	.03070	-1.25860
.609	-6.430	-.04760	.03560	.11040	-.01150	.00350	.05200	.02890	-.06710	.03290	-1.26860
.609	-4.400	-.07630	.03900	.07040	-.00690	.00230	.05410	.02870	-.07500	.03500	-1.37240
.609	-2.380	-.08340	.04170	.03190	-.00560	.00160	.05460	.02650	-.08270	.03570	-1.46380
.609	-.330	-.08740	.04490	-.00590	.00060	.00110	.05460	.02710	-.08790	.03570	-1.57860
.609	1.700	-.08630	.04330	-.04280	.00400	.00050	.05400	.02760	-.08560	.03510	-1.55390
.609	3.790	-.06650	.04110	-.08450	.00630	-.00030	.05230	.02860	-.08580	.03340	-1.60630
.609	5.790	-.07840	.03900	-.12640	.01330	-.00270	.05140	.03030	-.07770	.03240	-1.48270
.609	7.800	-.07440	.03900	-.16360	.01830	-.00270	.04880	.03090	-.07370	.03490	-1.48090
.609	9.730	-.07210	.03160	-.20210	.02090	-.00230	.04790	.03340	-.07150	.04880	-1.46400
.609	-.330	-.08310	.04490	-.00680	.00030	.00060	.05490	.02700	-.08240	.03600	-1.47210
.609	GRADIENT	-.00114	.00068	-.01889	.00196	-.00032	-.00021	.00004	-.00114	-.00019	-.02642

RUN NO. 128/ 0 RV/L = 6.24 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CH	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.698	-10.590	-.08480	.04290	.21370	-.02340	.00270	.06080	.03320	-.08400	.06200	-1.33480
.698	-8.590	-.08970	.04670	.17780	-.02280	.00420	.06050	.03040	-.08880	.06170	-1.43860
.698	-6.510	-.10240	.05550	.13450	-.01760	.00440	.06030	.02870	-.10150	.06170	-1.64480
.698	-4.450	-.10850	.06040	.08540	-.01070	.00340	.06090	.02740	-.10640	.06240	-1.73710
.698	-2.370	-.11300	.06480	.03660	-.00440	.00210	.06240	.02760	-.11280	.06390	-1.75390
.698	-.330	-.11960	.06990	-.00620	.00120	.00160	.06300	.02630	-.11870	.06460	-1.83660
.698	1.780	-.11930	.06590	-.03020	.00660	.00050	.06130	.02760	-.11640	.06290	-1.88170
.698	3.800	-.11890	.06190	-.09060	.01390	-.00090	.06050	.02780	-.11670	.06220	-1.86630
.698	5.870	-.11560	.05600	-.15070	.02180	-.00160	.06170	.02990	-.11470	.06330	-1.81160
.698	7.910	-.11160	.05360	-.18950	.02500	-.00270	.06180	.03310	-.11090	.06340	-1.74850
.698	9.870	-.11690	.04400	-.23240	.02970	-.00100	.06430	.03820	-.11560	.06670	-1.75160
.698	-.380	-.12120	.04630	-.00790	.00140	.00140	.06210	.02690	-.12030	.06380	-1.88320
.698	GRADIENT	-.00104	.00019	-.02220	.00292	-.00050	-.00009	.00004	-.00104	-.00007	-.01873

MSFC 574 (0448) ORB 1390 WALT N03E

(R07033) (10 JUL 73)

REFERENCE DATA

SREF = 2990.0000 94.17. 198P = 639.7000 IN.
 LREF = 474.0000 IN. 198P = .0000 IN.
 SREF = 936.7000 IN. 208P = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

ALPHA = .000 ELEVTR = .000
 AIRLON = .000 B07LAP = .000
 SPOBCK = 999.990

RUN NO. 129/ 0 RNVL = 6.64 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	BETA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/O
1.201	-10.820	-.04780	.04910	.20680	-.02490	.01420	.15970	.06200	-.04360	.18030	-.28470
1.201	-8.640	-.05010	.03240	.16730	-.02070	.01220	.16130	.06120	-.04810	.18200	-.29090
1.201	-6.540	-.04980	.03490	.12190	-.01490	.00930	.16140	.03750	-.04780	.18200	-.29390
1.201	-4.490	-.05040	.03740	.07740	-.00960	.00450	.16280	.03470	-.04630	.16340	-.29670
1.201	-2.400	-.05120	.06000	.03250	-.00290	.00360	.16370	.03310	-.04920	.16430	-.29930
1.201	-.320	-.05480	.06160	-.01140	.00280	.00130	.16490	.03500	-.03280	.16580	-.31870
1.201	1.740	-.05630	.06140	-.05590	.00830	-.00130	.16490	.03620	-.03630	.16580	-.33990
1.201	3.640	-.06340	.06190	-.10280	.01510	-.00460	.16730	.05630	-.06130	.16910	-.36460
1.201	5.910	-.06880	.06030	-.14920	.02780	-.00780	.16800	.03780	-.06670	.16880	-.39980
1.201	7.960	-.07480	.05980	-.19350	.02780	-.00990	.16830	.03980	-.07240	.16730	-.43320
1.201	9.940	-.08270	.05950	-.23400	.03120	-.01120	.16530	.06230	-.08050	.16640	-.48380
1.201	-.320	-.05430	.06170	-.01390	.00300	.00100	.16470	.03500	-.03230	.16540	-.31640
GRADIENT		-.00199	.00030	-.02153	.00280	-.00132	.00049	.00032	-.00159	.00031	-.00635

RUN NO. 170/ 0 RNVL = 7.02 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	BETA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/O
1.949	-10.370	.00350	.00270	.20630	-.01430	.00980	.13370	.03550	.03520	.13580	.03980
1.949	-8.370	.00220	.00900	.16220	-.01090	.00810	.13670	.03480	.00390	.13600	.02870
1.949	-6.270	.00250	.01170	.11870	-.00770	.00610	.13980	.03350	.00420	.13980	.03020
1.949	-4.200	.00000	.01500	.07670	-.00470	.00440	.14030	.03300	.00160	.14050	.01170
1.949	-2.110	-.00130	.01690	.03740	-.00150	.00270	.14130	.03230	.00020	.14140	.00200
1.949	.000	-.00460	.01790	-.00280	.00150	.00070	.13780	.03180	-.00320	.13780	-.02340
1.949	2.080	-.00550	.01770	-.04290	.00440	-.00100	.13920	.03180	-.00380	.13930	-.02780
1.949	4.180	-.00780	.01720	-.08340	.00720	-.00280	.14060	.03210	-.00610	.14070	-.04350
1.949	6.300	-.01030	.01550	-.12960	.01030	-.00450	.14010	.03320	-.00460	.14020	-.06190
1.949	8.400	-.01150	.01150	-.17340	.01380	-.00650	.13790	.03300	-.00980	.13810	-.07150
1.949	10.390	-.01430	.00750	-.22070	.01690	-.00800	.13780	.03370	-.01260	.13790	-.09150
1.949	.000	-.00450	.01760	-.00640	.00160	.00030	.13710	.03180	-.00290	.13710	-.02110
GRADIENT		-.00795	.00025	-.01915	.00142	-.00065	-.00009	-.00011	-.00093	-.00008	-.00671

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(R07033) (16 JUL 73)

MSFC 374 (0A48) ORB 1398 WALT NOSE

PARAMETRIC DATA

REFERENCE DATA

ALPHA = .000
ELEVTR = .000
AIIURON = .000
BCFLAP = .000
SPORRK = 999.990

9007 = 2800.0000 90.77.
1007 = 474.0000 IN.
2007 = 936.7000 IN.
SCALE = .0040

RUN NO. 131/ 0 RVL = 4.03 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CH	CLM	CY	CYN	COL	CA	CAB	CL	CD	L/D
2.990	-10.470	-.03480	-.00960	.16730	-.00970	.00590	.10700	.01820	-.03590	.10730	-.30330
2.990	-8.540	-.03500	-.00770	.14470	-.00880	.00530	.10630	.01810	-.03360	.10670	-.31310
2.990	-6.400	-.03560	-.00430	.10790	-.00960	.00460	.10540	.01780	-.03420	.10590	-.32340
2.990	-4.400	-.03630	-.00250	.07000	-.00440	.00340	.10480	.01700	-.03720	.10530	-.33330
2.990	-2.370	-.04130	-.00080	.03470	-.00210	.00220	.10310	.01690	-.03990	.10570	-.37790
2.990	-.330	-.04130	.00030	-.00300	.00140	.00060	.10460	.01670	-.04010	.10540	-.38110
2.990	1.700	-.04390	.00050	-.04240	.00470	-.00110	.10320	.01720	-.04280	.10560	-.40240
2.990	3.780	-.04330	.00030	-.07900	.00690	-.00230	.10320	.01740	-.04390	.10560	-.41520
2.990	5.810	-.04680	-.00200	-.11370	.00620	-.00340	.10680	.01800	-.04540	.10690	-.42490
2.990	7.830	-.05000	-.00380	-.15340	.01140	-.00400	.10660	.01810	-.04680	.10720	-.43330
2.990	9.780	-.05390	-.00470	-.18960	.01240	-.00460	.10730	.01830	-.04810	.10800	-.46270
2.990	-.330	-.04390	.00080	-.00480	.00130	.00040	.10470	.01660	-.04230	.10520	-.40420
2.990	GRADIENT	-.00079	.00034	-.01829	.00143	-.00072	.00004	.00005	-.00079	.00005	-.00723

RUN NO. 130/ 0 RVL = 5.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CH	CLM	CY	CYN	COL	CA	CAB	CL	CD	L/D
4.999	-10.360	-.04640	-.01290	.14920	-.00780	.00510	.09010	.00480	-.04720	.09070	-.32110
4.999	-8.440	-.04990	-.01070	.11960	-.00340	.00430	.08630	.00470	-.04460	.08910	-.30310
4.999	-6.400	-.04430	-.01130	.08930	-.00390	.00340	.08630	.00460	-.04340	.08700	-.49670
4.999	-4.400	-.04640	-.01200	.05920	-.00240	.00240	.08420	.00450	-.04530	.08480	-.33440
4.999	-2.340	-.04390	-.01350	.02630	-.00030	.00060	.08140	.00460	-.04230	.08190	-.31860
4.999	-.330	-.04260	-.01560	-.00270	.00130	.00000	.08030	.00460	-.04170	.08100	-.31320
4.999	1.880	-.04470	-.01240	-.03230	.00310	-.00210	.08130	.00460	-.04360	.08160	-.33360
4.999	3.740	-.05140	-.01130	-.06440	.00540	-.00180	.08370	.00460	-.03940	.08440	-.39680
4.999	5.740	-.05320	-.00870	-.09400	.00660	-.00270	.08560	.00460	-.03210	.08630	-.60390
4.999	7.730	-.05700	-.01060	-.12370	.00680	-.00330	.08660	.00490	-.03590	.08740	-.63960
4.999	9.670	-.06360	-.01060	-.15630	.00630	-.00460	.08920	.00500	-.03910	.09010	-.69330
4.999	-.330	-.04360	-.01290	-.00270	.00090	.00130	.07930	.00490	-.04260	.07960	-.33340
4.999	GRADIENT	-.00055	.00012	-.01516	.00094	-.00145	-.00005	.00002	-.00056	-.00004	-.00686

REFERENCE DATA

9807 = 2000.0000 IN. XMRP = 838.7000 IN.
 9807 = 474.0000 IN. YMRP = .0000 IN.
 9807 = 938.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

ALPHA = 10.000 ELEVTR = .000
 AIRLON = .000 BOFLAP = .000
 SPDRNK = 999.990

RUN NO. 120/ 0 R/V/L = 4.96 GRADIENT INTERVAL = -5.00/ 5.00

MACN	BETA	CN	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/O
.998	-10.400	.47750	.01400	.17510	-.01880	.02320	.01990	.03420	.48700	.10130	4.59810
.998	-8.480	.47540	.01720	.14480	-.01490	.02060	.02030	.03360	.46490	.10180	4.56280
.998	-6.440	.46340	.02160	.10430	-.01070	.01590	.02130	.03120	.43290	.10090	4.50300
.998	-4.400	.45940	.02530	.06350	-.00570	.01050	.02100	.03130	.40940	.09960	4.51020
.998	-2.350	.45690	.02750	.02880	-.00190	.00630	.02280	.03060	.44760	.10090	4.43820
.998	-.340	.45280	.02830	-.01050	.00110	.00270	.02210	.02930	.44230	.09940	4.44790
.998	1.680	.45670	.02890	-.04900	.00490	-.00170	.02170	.03060	.44620	.09970	4.47200
.998	3.780	.45410	.02570	-.08680	.00870	-.00590	.02100	.03060	.44390	.09820	4.50220
.998	5.770	.45340	.02420	-.12660	.01420	-.01060	.02070	.03200	.44330	.09820	4.51430
.998	7.790	.45370	.02160	-.17080	.01920	-.01490	.02030	.03410	.44350	.09810	4.53990
.998	9.720	.45370	.01950	-.20260	.02090	-.01780	.02010	.03590	.44350	.09750	4.54660
.998	-.330	.45390	.02910	-.01250	.00390	.00800	.02170	.02960	.44540	.09960	4.47010
GRADIENT	-.00085	.00028	.00028	-.01846	.00175	-.00200	-.00004	-.00004	-.00063	-.00017	.00086

RUN NO. 121/ 0 R/V/L = 6.26 GRADIENT INTERVAL = -5.00/ 5.00

MACN	BETA	CN	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/O
.998	-10.580	.51480	-.00610	.20610	-.01230	.01310	.06640	.03780	.48490	.13680	3.15800
.998	-8.630	.50400	-.00250	.16730	-.01470	.01390	.06480	.03480	.48490	.13310	3.16310
.998	-6.740	.49980	.00230	.12360	-.01100	.01090	.06350	.03330	.46010	.13300	3.13480
.998	-4.460	.49480	.00370	.07890	-.00600	.00750	.06640	.03240	.47500	.13300	3.10420
.998	-2.390	.48310	.00790	.03310	-.00120	.00350	.06900	.03320	.47320	.13440	3.06320
.998	-.340	.46940	.01050	-.00630	.00170	.00300	.06720	.03320	.46970	.13300	3.06970
.998	1.710	.46820	.01000	-.05110	.00540	-.00330	.06780	.03250	.46650	.13300	3.04860
.998	3.820	.49060	.00730	-.09590	.01070	-.00740	.06690	.03370	.47090	.13460	3.04560
.998	5.870	.49140	.00450	-.14260	.01540	-.01110	.06760	.03460	.47160	.13370	3.06710
.998	7.980	.48970	.00090	-.18810	.01860	-.01330	.06780	.03750	.47070	.13350	3.08020
.998	9.890	.49120	.00050	-.22800	.01890	-.01430	.06810	.04150	.47140	.13410	3.05660
.998	-.340	.49120	.01040	-.00950	.00180	.00030	.06810	.03300	.47130	.13420	3.05540
GRADIENT	-.00070	.00061	.00061	-.02091	.00193	-.00175	.00020	.00009	-.00072	.00009	-.00637

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TABULATED SOURCE DATA - NSFC TWT 574

NSFC 574 (0A48) ORB 1398 WALT NOSE

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(R87034) (18 JUL 75)

REFERENCE DATA

REF = 3880.0000 SA-PT. WHP = 638.7000 IN.
 LREF = 474.6000 IN. YHP = .0000 IN.
 BREF = 938.7000 IN. ZHP = .0000 IN.
 SCALE = .0040

ALPHA = 10.000 ELEVTR = .000
 AIRCON = .000 BOPLAP = .000
 SPORCK = 999.990

PARAMETRIC DATA

RUN NO. 182/ 0 RML = 6.67 GRADIENT INTERVAL = -5.00/ 5.00

MACN	BETA	CN	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/O
1.800	-10.800	.6080	-.04870	.17900	-.01330	.01970	.18440	.04600	.56870	.23280	2.16390
1.800	-8.480	.60780	-.05100	.14000	-.01140	.01530	.15700	.06330	.56890	.26340	2.14310
1.800	-6.880	.61010	-.05380	.10210	-.00790	.01080	.13770	.06470	.57100	.26850	2.14220
1.800	-4.880	.60810	-.05820	.06390	-.00430	.00870	.13620	.06170	.56990	.26890	2.13330
1.800	-2.410	.60810	-.04980	.02470	-.00070	.00280	.13510	.05800	.56740	.26400	2.14920
1.800	-.340	.60780	-.04950	-.01700	.00360	.00120	.13510	.03740	.56900	.26380	2.15830
1.800	1.780	.60810	-.04950	-.05900	.00890	-.00370	.13680	.06000	.56820	.26540	2.14480
1.800	3.340	.60510	-.04990	-.08090	.00960	-.00740	.13710	.06220	.56820	.26510	2.13330
1.800	5.880	.60070	-.04720	-.13130	.01350	-.01170	.13960	.06610	.56130	.26690	2.10330
1.800	7.220	.60500	-.04480	-.17110	.01750	-.01320	.15940	.06710	.55630	.26550	2.09550
1.800	9.380	.60710	-.04670	-.20900	.02050	-.01870	.15850	.06560	.54830	.26300	2.08470
1.800	-3.40	.60280	-.05080	-.01730	.00350	-.00010	.15330	.05800	.56780	.26150	2.17020
1.800	GRADIENT	-.60028	.60384	-.01671	.00172	-.00167	-.00006	.00015	-.00027	-.00011	-.00022

RUN NO. 188/ 0 RML = 7.01 GRADIENT INTERVAL = -5.00/ 5.00

MACN	BETA	CN	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/O
1.801	-10.400	.42160	-.03370	.18880	.00040	.01380	.12130	.03340	.42240	.20080	2.10310
1.801	-8.360	.44470	-.03130	.12970	.00120	.01080	.12430	.03440	.41580	.20210	2.05350
1.801	-6.300	.44480	-.03000	.09590	.00080	.00820	.12490	.03350	.41580	.20280	2.04710
1.801	-4.210	.43940	-.02940	.06030	.00100	.00540	.12540	.03250	.41600	.20300	2.03900
1.801	-2.120	.43920	-.02870	.02880	.00140	.00270	.12590	.03060	.41000	.19960	2.03190
1.801	.000	.43750	-.02860	-.00890	.00170	.00000	.12540	.03120	.40810	.19960	2.04180
1.801	2.070	.43610	-.02790	-.04050	.00210	-.00240	.12450	.03270	.40870	.20070	2.02800
1.801	4.140	.42970	-.02790	-.07360	.00220	-.00490	.12550	.03560	.40020	.20030	1.99810
1.801	6.280	.43400	-.02660	-.11040	.00130	-.01010	.12670	.03600	.40220	.20240	1.99820
1.801	8.340	.43500	-.02770	-.14540	.00190	-.01300	.12670	.03600	.40520	.20270	1.99670
1.801	10.370	.44100	-.03110	-.19550	.00190	-.01300	.12460	.03630	.41150	.20180	2.03900
1.801	.000	.41980	-.02940	-.01000	.00160	-.00040	.11970	.03120	.39160	.19190	2.03960
1.801	GRADIENT	-.00190	.00020	-.01806	.00015	-.00125	.00009	.00042	-.00146	-.00020	-.00034

DATE 28 SEP 75

TABULATED SOURCE DATA - NSFC TWT 574

NSFC 574 (0448) ORB 1398 WALT NOSE

(067034) (16 JUL 75)

REFERENCE DATA

8807 = 2880.0000 88.00 FT. 1000P = 838.7000 IN.
 8807 = 474.8000 IN. 1000P = .0000 IN.
 8807 = 956.7000 IN. 2000P = .0000 IN.
 SCALE = .0040

ALPHA = 10.000 ELEVTR = .000
 AILRON = .000 BOFLAP = .000
 SPOROK = 999.990

PARAMETRIC DATA

RUN NO. 132/ 0 RN/L = 4.05 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	ON	CLM	CY	CYN	COL	CA	CAS	CL	CD	L/O
2.980	-10.450	.77250	-.01360	.14880	-.00370	.01220	.08310	.01880	.23980	-.13790	1.63480
2.990	-8.910	.27010	-.01080	.11950	-.00330	.01020	.08290	.01880	.25080	-.13710	1.62710
2.990	-8.450	.28810	-.00820	.08950	-.00180	.00750	.09300	.01880	.24690	-.13680	1.60490
2.990	-4.410	.28290	-.00470	.08210	.00000	.00470	.09330	.01830	.24340	-.13640	1.78450
2.990	-2.370	.28140	-.00310	.08350	.00080	.00840	.09200	.01780	.24210	-.13480	1.79580
2.990	-.330	.28950	-.00390	-.00710	.00060	-.00320	.09080	.01750	.24040	-.13330	1.80410
2.990	1.700	.25860	-.00320	-.00750	.00120	-.00280	.09200	.01770	.23900	-.13420	1.79020
2.990	3.780	.25840	-.00480	-.06720	.00180	-.00510	.09290	.01890	.24000	-.13540	1.77250
2.990	5.800	.28010	-.00690	-.10130	.00370	-.00810	.08880	.01870	.24070	-.13320	1.79020
2.990	7.820	.28100	-.00890	-.13440	.00470	-.01040	.08270	.01880	.24160	-.13710	1.78450
2.990	9.780	.28250	-.01270	-.16910	.00440	-.01210	.08420	.01930	.24280	-.13710	1.78950
2.990	-.330	.25840	-.00340	-.00710	.00050	-.00340	.09070	.01780	.24040	-.13320	1.80470
2.990	GRADIENT	-.00050	-.00002	-.01467	.00023	-.00122	-.00004	.00002	-.00048	-.00013	-.00196

RUN NO. 133/ 0 RN/L = 4.94 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	ON	CLM	CY	CYN	COL	CA	CAS	CL	CD	L/O
4.998	-10.380	.18750	-.00740	.12110	-.00110	.01090	.07250	.00480	.17240	.10580	1.63210
4.998	-8.430	.18700	-.00480	.08870	-.00110	.00880	.07420	.00480	.17210	.10420	1.65180
4.998	-8.380	.18700	-.00380	.07180	-.00110	.00750	.07330	.00490	.17220	.10340	1.68800
4.998	-4.370	.18800	-.00720	.04970	-.00090	.00480	.07250	.00480	.17210	.10250	1.67930
4.998	-2.340	.18850	-.00250	.02080	.00010	.00220	.07130	.00490	.17210	.10120	1.69090
4.998	-.340	.18810	-.00180	-.00330	.00040	-.00020	.07080	.00470	.17180	.10050	1.70900
4.998	1.880	.18820	-.01050	-.02950	.00070	-.00210	.07070	.00480	.17180	.10060	1.70710
4.998	3.720	.18170	-.00320	-.05700	.00120	-.00470	.07080	.00490	.16740	.09990	1.67480
4.998	5.740	.18300	-.00450	-.08190	.00150	-.00670	.07230	.00500	.16650	.10180	1.65700
4.998	7.760	.18310	-.00290	-.10680	.00130	-.00880	.07250	.00510	.16850	.10190	1.65280
4.998	9.800	.17950	-.00320	-.12970	.00080	-.01010	.07400	.00520	.16470	.10280	1.60250
4.998	-.340	.18490	-.00270	-.00260	-.00010	-.00010	.07030	.00500	.17060	.10000	1.70490
4.998	GRADIENT	-.00032	.00000	-.01265	.00018	-.00115	-.00020	-.00000	-.00048	-.00029	-.00005

PARAMETRIC DATA

ALPMA =	20,000	ELEVTR =	.000
AILSON =	.000	BOFLAP =	.000
APPEBK =	999,999		

ITEM NO. 100/ 9 BW/L = 4.98 CRATED INTERVAL = -3.00/ 5.00

ITEM NO. 124/ 0 R/L = 6.25 GRADIENT INTERVAL = -5.00/ 5.00

WASH	BETA	ON	CLM	CY	CYN	CEL	CA	CAS	CL	CD	L/D
.000	-10.040	1.00140	.000970	.13960	.01960	.02360	.06300	.05730	.99120	.46140	2.14860
.000	-8.000	1.10040	-.000400	.10960	.01600	.01760	.06620	.05600	.99900	.46610	2.14310
.000	-6.960	1.10860	-.000670	.07770	.01130	.01190	.07260	.05760	1.00400	.47480	2.11430
.000	-4.510	1.10620	-.000680	.04090	.01290	.00390	.07590	.05630	1.00360	.47790	2.10030
.000	-2.430	1.10690	-.000780	.00950	.00950	-.00060	.07660	.05690	1.00100	.47770	2.09310
.000	-.340	1.10330	-.01030	-.02630	.00490	-.00490	.07790	.05960	.99760	.47760	2.06970
.000	1.750	1.10400	-.000600	-.01540	-.00060	-.00060	.07760	.05960	.99630	.47770	2.06970
.000	3.850	1.10290	-.000650	-.05660	-.00120	-.01360	.07670	.04610	.99360	.47640	2.09360
.000	5.910	1.09360	-.002270	-.13240	-.01960	-.01680	.06910	.05510	.99190	.46580	2.12940
.000	7.960	1.06140	.003310	-.16330	-.00920	-.02410	.06320	.05430	.96260	.45560	2.13700
.000	9.940	1.07660	-.003310	-.19520	-.00960	-.03060	.06390	.05620	.96000	.45550	2.15150
.000	1.1190	.000630	-.002300	-.02970	.00200	-.00370	.07670	.05930	1.00310	.46200	2.09320
.000	-.330	1.11190	-.000630	-.02970	-.00163	-.00206	.00013	.00032	-.00072	-.00014	-.00068
.000	-.00072	-.00072	-.00019	-.01647	-.00163	-.00206	.00013	.00032	-.00072	-.00014	-.00068

DATE 28 SEP 75

TABULATED SOURCE DATA - NSFC TWT 574

NSFC 574 (0448) ORB 1396 W/ALT NOSE

(087035) (18 JUL 75)

REFERENCE DATA

REF = 2890.0000 96. FT. XREF = 836.7000 IN.
 LREF = 474.0000 IN. YREF = .0000 IN.
 BREF = 936.7000 IN. ZREF = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

ALPHA = 20.000 ELEVTR = .000
 AIRRON = .000 BDFLAP = .000
 SPODRK = 999.990

RUN NO. 123/ 0 RV/L = 0.67 GRADIENT INTERVAL = -5.00/ 5.00

NAME	BETA	CH	CLM	CY	CYN	CSL	CA	CAB	CL	CD	L/D
1.005	-10.760	1.19400	-.08680	.14070	.02390	.01320	.13600	.06950	1.05970	.57510	1.84270
1.005	-8.780	1.20240	-.08910	.10410	.02050	.01150	.13710	.06960	1.06320	.57790	1.83980
1.005	-6.620	1.21120	-.09980	.08990	.01620	.00690	.13930	.06320	1.07040	.58360	1.83420
1.005	-4.970	1.21880	-.10110	.05690	.01190	.00430	.14350	.07180	1.07020	.58780	1.82050
1.005	-2.480	1.21100	-.10540	.00990	.00720	.00130	.14450	.07070	1.06840	.58810	1.81640
1.005	-.330	1.21480	-.10180	-.02820	.00270	-.00220	.14450	.07310	1.07130	.58950	1.81730
1.005	1.780	1.21370	-.10280	-.05900	.00210	-.00350	.14320	.07350	1.07080	.58980	1.81490
1.005	3.890	1.21290	-.10190	-.08820	-.00840	-.00970	.14210	.07510	1.07090	.58660	1.82350
1.005	6.000	1.20810	-.09790	-.12290	-.01290	-.01240	.13610	.07240	1.06630	.58020	1.83770
1.005	8.100	1.16780	-.08490	-.16760	-.01340	-.01370	.13790	.07420	1.04940	.57260	1.85200
1.005	10.100	1.17300	-.08350	-.20750	-.01540	-.01990	.13770	.07420	1.03610	.56460	1.82800
1.005	-1.330	1.21080	-.10250	-.02750	.00260	-.00240	.14450	.07270	1.06820	.58810	1.81630
1.005	GRADIENT	.00015	-.00016	-.01492	-.00236	-.00155	-.00010	.00054	.00017	-.00003	.00041

RUN NO. 171/ 0 RV/L = 7.04 GRADIENT INTERVAL = -5.00/ 5.00

NAME	BETA	CH	CLM	CY	CYN	CSL	CA	CAB	CL	CD	L/D
1.937	-10.470	.91670	-.05670	.14670	.01600	.01740	.10330	.03620	.81340	.47120	1.86900
1.937	-8.440	.90840	-.05740	.10570	.01720	.01290	.10290	.03630	.80700	.43160	1.86690
1.937	-6.350	.91710	-.05560	.06600	.01660	.00810	.10710	.03720	.81230	.43900	1.85010
1.937	-4.240	.91670	-.05510	.03350	.01330	.00390	.10630	.03700	.81150	.44000	1.84310
1.937	-2.130	.91660	-.05460	.00750	.00810	.00060	.10970	.03680	.81100	.44140	1.83750
1.937	.000	.91800	-.05360	-.01350	.00040	-.00110	.10960	.03660	.81210	.44180	1.83810
1.937	2.100	.91450	-.05360	-.03550	-.00710	-.00300	.10810	.03610	.80940	.43900	1.84360
1.937	4.160	.90560	-.05330	-.06070	-.01210	-.00600	.10490	.03570	.80260	.43240	1.85600
1.937	6.340	.91040	-.05400	-.09660	-.01510	-.01090	.10290	.03490	.80770	.43250	1.86720
1.937	8.440	.91440	-.05560	-.13770	-.01640	-.01490	.10070	.03460	.81210	.43210	1.87910
1.937	10.460	.91440	-.05360	-.17870	-.01680	-.01900	.10060	.03480	.81200	.43240	1.87770
1.937	.000	.89760	-.05370	-.01350	-.00030	-.00110	.10680	.03640	.79470	.43080	1.84440
1.937	GRADIENT	-.00116	.00022	-.01100	-.00234	-.00112	-.00040	-.00015	-.00092	-.00063	.00141

(R07035) (18 JUL 75)

TABULATED SOURCE DATA - NSFC TUT 574
NSFC 574 (00448) CRB 1398 W/ALT NOSE

DATE 24 SEP 75

PARAMETRIC DATA

ALPHA = 20.000 ELEVTR = .000
AIRCON = .000 BOFLAP = .000
SPDRK = 999.990

REFERENCE DATA

REF = 2000.0000 98.171. 2000 = 656.7000 IN.
LREF = 474.7000 IN. 1000 = .0000 IN.
REF = 996.7000 IN. 2000 = .0000 IN.
SCALE = .0040

RUN NO. 135/ 0 RWL = 4.03 GRADIENT INTERVAL = -5.00/ 5.00

MACN	BETA	ON	CLM	CT	CYN	CEL	CA	CAB	CL	CD	L/D
2.000	-10.400	.0410	-.00490	.12040	.00010	.01000	.00480	.01020	.57120	.30420	1.07740
2.000	-8.800	.04040	-.00230	.09120	.00000	.01440	.00390	.01910	.57040	.30300	1.08240
2.000	-6.400	.04000	-.00220	.06270	.00000	.01000	.00340	.01940	.57010	.30250	1.08440
2.000	-4.410	.03980	-.01000	.03330	.00000	.00370	.00360	.01900	.56720	.30140	1.08130
2.000	-2.390	.03970	-.01000	.02000	.00000	.00190	.00350	.01840	.56340	.30060	1.08030
2.000	-.330	.03970	-.01070	.01030	.00040	-.00000	.00270	.01790	.56400	.29940	1.08530
2.000	1.700	.03900	-.01770	.00130	.00140	-.00360	.00230	.01730	.56400	.29890	1.08700
2.000	3.700	.03860	-.00900	.00070	.00000	-.00420	.00190	.01780	.56320	.29840	1.08400
2.000	5.600	.03810	-.00210	.00050	.00000	-.01260	.00100	.01810	.56370	.29730	1.08900
2.000	7.600	.03710	-.00210	.00000	.00000	-.01640	.00170	.01850	.56300	.29780	1.09030
2.000	9.700	.03510	-.00240	.00000	.00000	-.00760	.00290	.01860	.56300	.29910	1.08220
2.000	-1.330	.03390	-.01700	.00090	.00000	-.00100	.00210	.01790	.56500	.29900	1.08930
2.000		-.00099	-.00004	-.00120	.00140	-.00164	-.00026	-.00016	-.00026	-.00036	.00156

RUN NO. 134/ 0 RWL = 4.03 GRADIENT INTERVAL = -5.00/ 5.00

MACN	BETA	ON	CLM	CT	CYN	CEL	CA	CAB	CL	CD	L/D
4.000	-10.360	.00240	-.01130	.00910	.00040	.01480	.07370	.00490	.46500	.24920	1.06610
4.000	-8.430	.00290	-.01170	.07390	.00010	.01160	.07210	.00500	.46680	.24810	1.06040
4.000	-6.400	.00340	-.00900	.00330	.00490	.00910	.07100	.00500	.46870	.24790	1.09130
4.000	-4.370	.00340	-.00910	.00300	.00270	.00560	.06960	.00500	.46740	.24570	1.90150
4.000	-2.390	.00260	-.00730	.01020	.00200	.00220	.06880	.00500	.46580	.24510	1.90000
4.000	-.330	.00300	-.01070	.00670	.00090	-.00110	.06890	.00480	.47420	.24780	1.91540
4.000	1.680	.00220	-.00770	.00270	.00320	-.00440	.06750	.00470	.46980	.24440	1.92210
4.000	3.740	.01610	-.00600	.00680	.00470	-.00760	.06630	.00470	.46090	.24200	1.90480
4.000	5.740	.01900	-.00620	.00620	.00360	-.01030	.06800	.00480	.46430	.24290	1.91100
4.000	7.760	.01990	-.00940	.00910	.00000	-.01350	.06880	.00490	.46070	.24220	1.90180
4.000	9.640	.01220	-.00610	.00990	.00090	-.01680	.07030	.00500	.45660	.24250	1.88280
4.000	-.340	.02240	-.00730	.00650	.00090	-.00120	.06850	.00480	.46680	.24430	1.91010
4.000		-.00056	.00001	-.00075	.00099	-.00165	-.00023	-.00004	-.00045	-.00040	.00141

GRADIENT

DATE 28 SEP 73

TABULATED SOURCE DATA - NSFC TWT 574

NSFC 574(0A48) ORB 1398 W/ALT NOSE

PAGE 61

(R07036) (18 JUL 73)

REFERENCE DATA

SREF = 2680.0000 84. FT. XMRP = 836.7000 IN.
 LREF = 474.8000 IN. YMRP = .0000 IN.
 SREF = 836.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

ALPHA = 30.000 ELEVTR = .000
 AIRCRN = .000 BDFLAP = .000
 SPDRK = 999.990

RUN NO. 126/ 0 RN/L = 4.98 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CN	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
.80E	-10.440	1.19000	.09420	.12550	.01340	.01730	.03130	.07560	1.00370	.64000	1.56820
.80E	-8.930	1.17400	.09560	.09400	.01220	.03440	.07360	.98860	.63430	1.55830	
.80E	-6.470	1.17260	.09570	.07230	.00630	.00650	.03790	.07430	.98550	.63640	1.54850
.80E	-4.430	1.16460	.09780	.04030	.00630	.00190	.04340	.07610	.97600	.63690	1.53230
.80E	-2.360	1.15490	.10030	.00230	.00490	-.00050	.04500	.07870	.96690	.63320	1.52700
.80E	-.330	1.15360	.10020	-.09020	.00290	-.00300	.04490	.08070	.96580	.63250	1.52700
.80E	1.700	1.15130	.10120	-.06370	.00090	-.00610	.04270	.08030	.96310	.62950	1.53290
.80E	3.770	1.15640	.09790	-.09740	-.00090	-.00940	.03670	.07850	.97400	.62800	1.55090
.80E	5.810	1.16500	.09760	-.12340	-.00540	-.01350	.03150	.07610	.96240	.62710	1.56650
.80E	7.830	1.16890	.09610	-.14840	-.01050	-.01900	.02710	.07600	.96620	.62430	1.57950
.80E	9.770	1.16990	.09630	-.17690	-.01310	-.02310	.02570	.07570	.96610	.62250	1.58390
.80E	-.330	1.15560	.10260	-.02570	.00050	-.00200	.04610	.08130	.96690	.63450	1.52380
GRADIENT		-.00077	.00005	-.01670	-.00092	-.00136	-.00077	.00031	-.00126	-.00105	.00211

RUN NO. 136/ 0 RN/L = 4.05 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CN	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
2.980	-10.480	1.07230	-.09070	.09460	.01620	.02120	.08390	.02000	.87620	.62370	1.40480
2.980	-8.900	1.07470	-.09040	.06870	.01420	.01590	.08250	.02000	.87890	.62390	1.40870
2.980	-6.480	1.07410	-.04980	.04330	.01210	.01080	.07990	.01970	.87960	.62130	1.41800
2.990	-4.480	1.07470	-.04930	.02020	.00900	.00600	.07800	.01910	.88130	.62000	1.42140
2.990	-2.370	1.07550	-.05030	.00050	.00430	.00210	.07680	.01900	.88250	.61940	1.42470
2.990	-.330	1.07520	-.04880	-.01480	-.00210	-.00010	.07670	.01890	.88240	.61920	1.42490
2.990	1.700	1.07510	-.04970	-.05480	-.00660	-.00430	.07650	.01900	.88240	.61890	1.42550
2.990	3.760	1.06910	-.04780	-.09610	-.01030	-.00910	.07690	.01930	.87620	.61560	1.42310
2.990	5.810	1.06970	-.04730	-.08700	-.01320	-.01410	.07800	.01970	.87700	.61740	1.42040
2.990	7.830	1.06350	-.04690	-.10610	-.01570	-.01970	.07880	.01980	.87130	.61480	1.41710
2.990	9.790	1.05690	-.04610	-.13390	-.01600	-.02550	.07920	.01900	.86720	.61270	1.41530
GRADIENT		-.00067	.00018	-.00920	-.00242	-.00179	-.00012	.00002	-.00050	-.00046	.00021

DATE 28 SEP 73

TABULATED SOURCE DATA - MSFC TWT 574

(1867036) (18 JUL 73)

MSFC 574 (0443) ORB 1398 W/ALT NOSE

PARAMETRIC DATA

ALPHA = 30.000 ELEVTR = .000
 ALTORN = .000 BOFLAP = .000
 SPCBRK = 999.990

REFERENCE DATA

SRCP = 2880.0000 88.0 FT. XMRP = 838.7000 IN.
 LMRP = 474.8000 IN. YMRP = .0000 IN.
 BMRP = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

RUN NO. 137/ 0 RW/L = 4.92 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CH	CLM	CY	CYN	CEL	CA	CAS	CL	CD	L/D
4.999	-10.380	.84750	-.03180	.07870	.01260	.01860	.07810	.00480	.77820	.54550	1.42660
4.999	-8.390	.95080	-.03590	.05780	.00920	.01460	.07490	.00480	.78160	.54610	1.43120
4.999	-6.390	.93290	-.03290	.03690	.00690	.01070	.07290	.00480	.78480	.54560	1.43600
4.999	-4.370	.95050	-.03230	.02060	.00440	.00630	.07190	.00450	.78310	.54350	1.44070
4.999	-2.390	.95500	-.03320	.01120	.00200	.00200	.07090	.00450	.78770	.54460	1.44620
4.999	-.340	.95550	-.03310	-.01220	-.00150	-.00140	.07070	.00470	.78600	.54510	1.44560
4.999	1.680	.95060	-.03340	-.03100	-.00470	-.00530	.07020	.00480	.78400	.54210	1.44620
4.999	3.740	.95150	-.03310	-.04960	-.00680	-.00990	.07010	.00480	.78480	.54250	1.44650
4.999	5.740	.94820	-.03310	-.06790	-.00940	-.01390	.07120	.00480	.78230	.54220	1.44270
4.999	7.760	.94370	-.03320	-.08750	-.01180	-.01730	.07250	.00480	.77720	.54010	1.43890
4.999	9.880	.94180	-.03310	-.10550	-.01490	-.02060	.07280	.00480	.77500	.53980	1.43570
4.999	-.350	.93870	-.03290	-.01350	-.00160	-.00150	.06980	.00460	.78600	.54260	1.44790
4.999	-.00012	-.00009	-.00009	-.00856	-.00145	-.00194	-.00019	.00003	-.00002	-.00022	.00057

GRADIENT

DATE 28 SEP 73

TABULATED SOURCE DATA - MSFC TWT 574

MSFC 574 (CA48) ORB 1398 W/ALT NOSE

PAGE 63

(R87037) (18 JUL 73)

PARAMETRIC DATA

ALPHA = 40.000 ELEVTR = .000
 ATLRON = .000 BDFLAP = .000
 SPOBRK = 999.990

REFERENCE DATA

SRCT = 2090.0000 58. FT. ZMRP = 636.7000 IN.
 LREF = 474.0000 IN. YMRP = .0000 IN.
 SRCT = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

RUN NO. 136/ 0 HVL = 4.90 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CH	CLM	CY	CYN	ORL	CA	CAB	CL	CD	L/D
4.929	-10.390	1.42070	-.07480	.05940	.01490	.02320	.07750	.00400	1.02720	.96450	1.04330
4.929	-8.390	1.42790	-.07510	.04160	.01290	.01690	.07310	.00400	1.03410	.98740	1.04720
4.929	-6.390	1.43780	-.07750	.02490	.00690	.01350	.07380	.00410	1.04230	.99310	1.04960
4.929	-4.370	1.43990	-.07690	.01000	.00620	.00860	.07250	.00430	1.04480	.99340	1.05170
4.929	-2.390	1.44190	-.07760	-.00240	.00350	.00350	.07080	.00440	1.04750	.99330	1.05450
4.929	-.340	1.43990	-.07530	-.01690	-.00150	-.00160	.07020	.00440	1.04630	.99170	1.05500
4.929	1.670	1.44000	-.07690	-.03360	-.00580	-.00620	.06990	.00430	1.04650	.99160	1.05530
4.929	3.730	1.43450	-.07560	-.04960	-.00880	-.01110	.07060	.00430	1.04200	.98850	1.05400
4.929	5.750	1.42760	-.07410	-.06690	-.01150	-.01650	.07050	.00430	1.03690	.98390	1.05360
4.929	7.750	1.41880	-.07190	-.08220	-.01470	-.02060	.07260	.00450	1.02890	.97960	1.05030
4.929	9.690	1.40880	-.07040	-.09680	-.01790	-.02490	.07280	.00450	1.02110	.97300	1.04940
4.929	-.340	1.44120	-.07540	-.01810	-.00130	-.00120	.07100	.00450	1.04670	.99320	1.05380
4.929	GRADIENT	-.00063	.00016	-.00729	-.00169	-.00243	-.00022	-.00000	-.00033	-.00057	.00027

DATE 28 SEP 73

TABULATED SOURCE DATA - NSFC TWT 574

NSFC 574 (0448) ORB 1398 W/ALT NOSE

(R87038) (18 JUL 73)

REFERENCE DATA

SRCP = 2990.0000 58.47. XMRP = 836.7000 IN.
LREF = 474.9000 IN. YMRP = .0000 IN.
BREF = 936.7000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 CLEVTR = 15.000
AILRON = .000 SCFLAP = 13.750
SPDRK = 999.999

RUN NO. 119/ 0 RNVL = 4.97 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.000	-.310	.38090	-.15230	-.01590	.00360	-.00070	-.09000	.03780	.32140	.08820	3.64150
.000	1.670	.41470	-.15530	-.01590	.00360	-.00080	-.08820	.03650	.41230	.09830	4.18540
.000	3.790	.52280	-.15820	-.01660	.00430	-.00040	-.08020	.03600	.51640	.11470	4.50210
.000	5.890	.63080	-.16010	-.02110	.00420	-.00130	-.07070	.03600	.61970	.13500	4.98440
.000	8.010	.74000	-.16210	-.02450	.00500	-.00150	-.06040	.03600	.73030	.16390	4.45480
.000	10.100	.87710	-.17420	-.02560	.00430	.00000	-.05320	.03600	.85410	.20840	4.13810
.000	12.210	.99790	-.17850	-.02740	.00500	.00000	-.05740	.03830	.98280	.26720	3.60260
.000	14.290	1.04980	-.18660	-.03210	.00540	-.00160	-.06830	.04240	.99630	.32430	3.07220
.000	16.410	1.19580	-.18480	-.03980	.00690	-.00210	-.07030	.04570	1.12660	.40660	2.77080
.000	18.320	1.34330	-.19390	-.04070	.00680	-.00210	-.06870	.05930	1.25130	.49380	2.55500
.000	20.940	1.45790	-.18870	-.03910	.00640	-.00210	-.06870	.05930	1.34100	.57590	2.32830
.000	10.120	.88440	-.17430	-.02850	.00410	.00040	-.05450	.03540	.86100	.20910	4.11640
.000	.04926	.00017	-.00067	-.00067	.00017	.00017	-.00240	-.00044	.04758	.00648	.20917

RUN NO. 118/ 0 RNVL = 6.24 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.000	-.230	.30350	-.16630	-.02480	.00600	-.00170	.10790	.04070	.30350	.10670	2.64750
.000	1.890	.43820	-.16750	-.02610	.00610	-.00120	.10880	.03940	.43450	.12300	3.53230
.000	4.080	.57240	-.17180	-.02670	.00550	-.00020	.10960	.03960	.56320	.14990	3.75690
.000	6.210	.69990	-.17020	-.02550	.00470	-.00090	.11160	.04130	.65280	.18230	3.56020
.000	8.340	.76640	-.17030	-.02790	.00510	-.00000	.11150	.04190	.74200	.22180	3.34320
.000	10.530	.88320	-.17150	-.02690	.00400	-.00020	.11840	.04430	.84670	.27790	3.04810
.000	12.710	1.01330	-.17290	-.02580	.00320	-.00020	.12360	.04820	.96130	.34260	2.79770
.000	14.930	1.13870	-.17360	-.02980	.00440	-.00150	.12730	.05320	1.06730	.41660	2.56180
.000	17.080	1.25900	-.17300	-.03470	.00560	-.00300	.13140	.06230	1.14190	.48850	2.33760
.000	19.220	1.31300	-.17420	-.03560	.00400	-.00440	.13130	.06870	1.19690	.56350	2.15050
.000	21.230	1.35630	-.17170	-.02460	-.00010	-.00440	.13650	.06040	1.21670	.61010	1.96510
.000	10.530	.88060	-.17430	-.02800	.00400	-.00180	.11680	.04420	.84440	.27570	3.06200
.000	.06266	.00012	-.00044	-.00044	.00012	.00012	-.00040	-.00042	.06042	.01009	.21069

GRADIENT

DATE 28 SEP 73

TABULATED SOURCE DATA - MSFC TWT 371

MSFC 574 (0448) ORB 1398 W/ALT NOSE

(R87038) (18 JUL 73)

REFERENCE DATA

SREF = 2880.0700 98.47. XMRP = 638.7000 IN.
 LREF = 474.8000 IN. YMRP = .0000 IN.
 SREF = 934.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

BETA = .000 ELEVTR = 19.000
 AIRLON = .000 BCFAP = 13.750
 SPOBCK = 999.990

PARAMETRIC DATA

RUN NO. 117/ 0 RV/L = 6.66 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
1.202	-2.240	.23300	-.12850	-.01740	.00470	-.00070	.20950	.06580	.23670	.20850	1.13320
1.202	1.860	.37100	-.16050	-.01890	.00500	-.00060	.21050	.06410	.36390	.22240	1.63390
1.202	4.110	.51100	-.19050	-.02070	.00510	-.00060	.21080	.06500	.49490	.24670	2.00430
1.202	6.340	.65130	-.21650	-.02260	.00540	-.00040	.21030	.06510	.62410	.26100	2.22060
1.202	8.590	.78720	-.23360	-.02420	.00520	.00000	.20920	.06630	.74720	.32430	2.30350
1.202	10.820	.92360	-.24740	-.02650	.00530	-.00020	.20950	.06740	.86800	.37930	2.28820
1.202	13.030	1.05180	-.25620	-.02790	.00540	-.00110	.21000	.06930	.97720	.44220	2.20950
1.202	15.310	1.16460	-.26290	-.02790	.00470	-.00160	.21090	.07100	1.06770	.51110	2.08870
1.202	17.500	1.27840	-.26810	-.02940	.00460	-.00230	.21440	.07580	1.15470	.59920	1.96020
1.202	19.670	1.38790	-.26840	-.03180	.00500	-.00160	.21400	.08050	1.21960	.68250	1.83920
1.202	21.750	1.48500	-.26930	-.03170	.00410	-.00170	.21200	.08340	1.27090	.73550	1.72790
1.202	10.820	.92190	-.24590	-.02630	.00540	-.00020	.20890	.06720	.76830	.37820	2.29100
1.202	GRADIENT	.06325	-.01424	-.00076	.00009	.00002	.00025	-.00018	.05927	.00881	.19936

RUN NO. 167/ 0 RV/L = 6.65 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
1.959	-1.350	.09370	-.09930	-.01400	.00360	-.00060	.15470	.03310	.09480	.15410	.61430
1.959	1.720	.18010	-.07370	-.01510	.00360	-.00060	.15490	.03390	.17540	.16030	1.09420
1.959	3.860	.27330	-.06960	-.01590	.00350	-.00090	.15670	.03330	.26190	.17690	1.48020
1.959	6.090	.35930	-.10070	-.01600	.00350	-.00060	.15770	.03370	.34090	.19470	1.75030
1.959	8.230	.45060	-.11110	-.01700	.00330	-.00100	.15690	.03330	.42340	.21960	1.92600
1.959	10.400	.54710	-.12150	-.01740	.00320	-.00120	.15660	.03300	.50980	.25280	2.01640
1.959	12.600	.63440	-.12920	-.01770	.00290	-.00150	.15390	.03420	.58350	.28890	2.02640
1.959	14.890	.74860	-.14210	-.01680	.00250	-.00180	.15740	.03460	.66340	.34410	1.96360
1.959	17.090	.85650	-.15570	-.01680	.00180	-.00170	.15670	.03590	.77420	.40360	1.91790
1.959	19.280	.96110	-.16670	-.01740	.00120	-.00170	.15980	.03670	.85450	.46790	1.82610
1.959	21.260	1.03200	-.17320	-.01740	.00050	-.00180	.15720	.03880	.90470	.52090	1.73680
1.959	10.320	.52060	-.11790	-.01690	.00330	-.00120	.14950	.03150	.48350	.24030	2.01890
1.959	GRADIENT	.04246	-.00697	-.00035	-.00002	-.00007	.00095	.00004	.03945	.00341	.20452

DATE 26 SEP 73

TABULATED SOURCE DATA - NSFC TWT 574

NSFC 574 (0446) CRB 1398 W/ALY NOSE

(R07038) (16 JUL 73)

REFERENCE DATA

SREF = 2890.0000 98. FT. XRRP = 836.7000 IN.
LREF = -74.6000 IN. YRRP = .0000 IN.
SREF = 936.7000 IN. ZRRP = .0000 IN.
SCALE = .0040

BETA = .000 ELEVTR = 13.000
AIRLON = .000 BDFLAP = 13.750
SPDRBK = 999.990

PARAMETRIC DATA

RUN NO. 143/ 0 RN/L = 4.13 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	-9.00	.02350	-.03730	-.01150	.00220	-.00060	.11590	.01810	.02420	.11570	.20910
2.990	1.480	.07950	-.03910	-.01020	.00200	-.00070	.11820	.01840	.07640	.11820	.64850
2.990	3.340	.14260	-.04300	-.01070	.00180	-.00070	.11390	.01840	.13550	.12240	1.10690
2.990	5.610	.20700	-.04750	-.01070	.00160	-.00090	.11220	.01830	.19500	.13200	1.47760
2.990	7.660	.27660	-.05440	-.01130	.00170	-.00120	.11110	.01820	.26140	.14740	1.77310
2.990	9.780	.35270	-.06090	-.01150	.00150	-.00140	.11130	.01810	.32870	.16950	1.93650
2.990	11.830	.42780	-.07070	-.01220	.00100	-.00160	.11200	.01810	.39570	.19740	2.00430
2.990	13.930	.50730	-.07810	-.01290	.00090	-.00180	.11340	.01800	.46510	.23230	2.00220
2.990	16.080	.58680	-.08600	-.01280	.00070	-.00200	.11480	.01800	.53430	.27260	1.95930
2.990	18.080	.67230	-.09670	-.01210	.00000	-.00160	.11560	.01790	.60310	.31860	1.89300
2.990	20.060	.75750	-.11040	-.01130	-.00050	-.00170	.11820	.01790	.67100	.37090	1.80970
2.990	9.780	.35660	-.08260	-.01240	.00140	-.00070	.11120	.01810	.53230	.17010	1.95470
GRADIENT		.02961	-.00141	.00020	-.00010	-.00002	-.00052	.00007	.02736	.00166	.22209

RUN NO. 144/ 0 RN/L = 4.94 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.999	-4.99	-.01120	-.02710	-.01120	.00140	.00000	.06560	.00470	-.01050	.08370	-.12260
4.999	1.430	.03470	-.03350	-.01000	.00220	-.00030	.06550	.00470	.03260	.06630	.37760
4.999	3.460	.06150	-.03430	-.00850	.00160	-.00040	.06500	.00480	.07620	.06960	.64900
4.999	5.490	.13590	-.03730	-.00940	.00070	-.00070	.06250	.00480	.12740	.09320	1.33620
4.999	7.530	.19060	-.04270	-.01040	.00110	-.00110	.06310	.00490	.17820	.10740	1.63670
4.999	9.560	.25060	-.04630	-.00940	.00110	-.00120	.06500	.00480	.23300	.12550	1.85650
4.999	11.600	.31690	-.05540	-.01000	.00090	-.00120	.06600	.00500	.29310	.14800	1.97970
4.999	13.690	.39110	-.06260	-.00940	.00080	-.00160	.06660	.00500	.35900	.17890	2.00640
4.999	15.710	.46700	-.07060	-.00810	.00040	-.00180	.06230	.00490	.42450	.21330	1.97140
4.999	17.760	.54690	-.08410	-.00970	-.00030	-.00170	.06480	.00470	.49190	.25720	1.91250
4.999	19.690	.63100	-.09420	-.00920	-.00050	-.00150	.06830	.00480	.56190	.30510	1.83810
4.999	9.570	.25740	-.04790	-.01030	.00050	-.00060	.06500	.00510	.23960	.12670	1.89160
GRADIENT		.02346	-.00161	.00074	.00005	-.00010	-.00015	.00003	.02194	.00104	.24564

DATE 26 SEP 73

TABULATED SOURCE DATA - NSFC TWT 374

NSFC 574 (0448) ORB 1398 W/ALT NOSE

(R07039; (18 JUL 73)

REFERENCE DATA

REF = 2890.0000 56.17. 39RP = 936.7000 IN.
 LREF = 474.8000 IN. YHRP = .0000 IN.
 EREF = 936.7000 IN. ZHRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = 15.000
 AILRON = .000 BDFLAP = 13.730
 SPDRK = 99.990

RUN NO. 146/ 0 RV/L = 4.10 GRADIENT INTERVAL = -5.00/ 5.00

MACI	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	20.890	.76470	-.11130	-.01540	-.00060	-.00250	.11930	.01810	.87340	.38140	1.76370
2.990	22.660	.89220	-.12340	-.01430	-.00160	-.00210	.12140	.01820	.73980	.44040	1.87920
2.990	24.750	.94700	-.13560	-.01460	-.00220	-.00210	.12440	.01840	.80970	.51040	1.98640
2.990	26.840	1.04370	-.15030	-.01610	-.00210	-.00200	.12660	.01860	.87380	.58330	1.49630
2.990	28.940	1.14650	-.16400	-.01760	-.00220	-.00180	.12960	.01880	.94040	.64650	1.40630
2.990	31.050	1.25080	-.17930	-.02140	-.00060	-.00330	.13250	.01900	1.00300	.70860	1.32200
2.990	33.190	1.35270	-.19290	-.02710	.00160	-.00500	.13530	.01920	1.05890	.85310	1.24080
2.990	35.290	1.45620	-.20770	-.02510	.00190	-.00510	.13760	.01930	1.10900	.95370	1.16280
2.990	37.370	1.56350	-.22360	-.02190	.00160	-.00560	.14000	.01910	1.15740	1.06040	1.09140
2.990	39.470	1.67360	-.24360	-.02550	.00210	-.00660	.14300	.01900	1.20090	1.17450	1.02240
2.990	41.480	1.79000	-.27110	-.02930	.00150	-.00610	.14620	.01940	1.24410	1.29320	.96030
2.990	1.25650	-.17790	-.02120	-.00100	-.00320	-.00320	.13210	.01910	1.00620	.78140	1.32400
GRADIENT	.04699	-.00752	-.00062	.00022	-.00025	.00126	.00126	.00016	.02746	.04375	-.03894

RUN NO. 145/ 0 RV/L = 4.94 GRADIENT INTERVAL = -5.00/ 5.00

MACI	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.999	20.270	.64330	-.09370	-.01140	-.00090	-.00250	.10120	.00440	.56630	.31790	1.76770
4.999	22.240	.72680	-.10900	-.01240	-.00190	-.00250	.10520	.00450	.63260	.37260	1.69840
4.999	24.300	.82030	-.12070	-.01340	-.00130	-.00240	.10640	.00450	.70310	.43650	1.61070
4.999	26.330	.92070	-.13220	-.01460	-.00140	-.00240	.11380	.00470	.77470	.51020	1.51820
4.999	28.440	1.02560	-.14820	-.01520	-.00070	-.00260	.11640	.00480	.84540	.59260	1.42630
4.999	30.480	1.13070	-.16360	-.01580	-.00060	-.00310	.12350	.00480	.91160	.64000	1.34070
4.999	32.540	1.23260	-.17810	-.01900	.00000	-.00360	.12730	.00480	.97060	.77030	1.25990
4.999	34.640	1.34110	-.19320	-.02090	.00070	-.00440	.13110	.00460	1.02660	.87030	1.18210
4.999	36.880	1.44700	-.20860	-.01960	.00050	-.00370	.13540	.00450	1.07950	.97300	1.10930
4.999	38.740	1.55210	-.22020	-.01890	.00010	-.00380	.13940	.00430	1.12320	1.06020	1.03970
4.999	40.680	1.64820	-.23430	-.02070	-.00020	-.00420	.14170	.00450	1.15750	1.13790	.97830
4.999	1.13440	-.16290	-.02100	-.00100	-.00310	-.00310	.12270	.00460	.91530	.68130	1.34330
GRADIENT	.04962	-.00664	-.00009	.00009	-.00010	.00206	.00206	.00000	.02954	.04276	-.03994

DATE 29 SEP 73

TABULATED SOURCE DATA - MSFC TWT 574

(R07040) (18 JUL 73)

PARAMETRIC DATA

BETA = .000 ELEVTR = -20.000
 AIRLON = .000 BDFLAP = .000
 SP08BK = 999.990

REFERENCE DATA

8007 = 2885.0000 88.77. 100P = 638.7000 IN.
 1007 = 474.0000 IN. 100P = .0000 IN.
 8007 = 994.7000 IN. 200P = .0000 IN.
 SCALE = .0000

RUN NO. 101/ D RV/L = 4.94 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.996	-.610	-.2000	.14410	-.00940	.00220	.00190	.00870	.02750	-.26010	.06590	-3.04190
.996	1.350	-.17650	.14500	-.01310	.00170	.00090	.06100	.02710	-.17840	.07660	-2.32190
.996	3.460	-.08100	.14640	-.01310	.00140	.00000	.07730	.02770	-.06560	.07230	-1.16370
.996	5.560	.02190	.14640	-.01460	.00160	-.00060	.06920	.02760	.01510	.07100	.21290
.996	7.660	.13060	.14620	-.01460	.00210	-.00070	.03760	.02760	.12200	.07470	1.63190
.996	9.760	.24210	.14210	-.01950	.00250	-.00030	.04920	.02690	.23020	.06950	2.37140
.996	11.860	.35060	.13870	-.01800	.00310	-.00070	.04620	.02690	.34160	.11900	2.66960
.996	13.960	.46130	.13620	-.02180	.00220	-.00060	.04530	.05000	.45600	.18130	2.84340
.996	16.070	.59010	.13420	-.02670	.00260	-.00030	.04560	.03900	.55440	.20720	2.67460
.996	18.180	.71170	.13150	-.02910	.00340	-.00220	.04310	.03630	.66260	.28310	2.31860
.996	20.200	.85460	.12370	-.03160	.00430	-.00350	.03970	.04240	.76830	.33250	2.37070
.996	24.360	.14340	-.C 10	.00230	-.00020	-.00020	.04690	.02610	.23140	.06950	2.36440
.996	9.760	.00037	-.00090	-.00020	-.00047	-.00133	-.00133	.00003	.04269	-.00323	.45732
.996	.04424										

RUN NO. 102/ D RV/L = 6.24 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.997	-.680	-.27090	.17100	-.01620	.00350	.00190	.10310	.03250	-.26960	.10640	-2.48660
.997	1.390	-.13060	.15500	-.01670	.00350	.00160	.10150	.03210	-.14100	.09810	-1.43790
.997	3.620	.01000	.13160	-.01960	.00370	.00170	.06630	.03800	.00360	.09670	.03900
.997	5.620	.13760	.11140	-.02320	.00370	.00050	.09470	.03260	.14730	.11020	1.35630
.997	6.020	.29090	.09660	-.02500	.00370	-.00010	.09340	.03120	.27500	.13310	2.06350
.997	10.210	.42600	.06430	-.02690	.00400	.00060	.09250	.03290	.40290	.16660	2.41620
.997	12.390	.55190	.07120	-.02930	.00350	-.00160	.09130	.03490	.51940	.20770	2.50070
.997	14.570	.65660	.07140	-.03310	.00410	-.00160	.08920	.03790	.61300	.25150	2.43670
.997	16.740	.77140	.07120	-.03270	.00350	-.00170	.08920	.04180	.71210	.31070	2.29200
.997	18.920	.86480	.07670	-.03060	.00350	-.00220	.09230	.04630	.80500	.36030	2.11650
.997	20.960	.94360	.10740	-.03300	.00360	-.00190	.09660	.05090	.84470	.43330	1.94920
.997	24.360	.10420	-.02640	-.00360	.00360	-.00190	.10230	.03190	.39680	.16330	2.44760
.997	10.200	.42240	.06420	-.02640	.00360	-.00190	.08990	.03190	.39680	.16330	2.44760
.997	.06534		-.00916	-.00083	.00005	.00005	-.00158	-.00007	.06560	-.00222	.56636

DATE 28 SEP 75

TABULATED SOURCE DATA - NSFC TWT 574

NSFC 574 (04048) CRB 1398 W/ALT NOSE

(087040) (18 JUL 75)

PARAMETRIC DATA

BETA = .000 ELEVTR = -20.000
 ATLON = .000 BOFLAP = .000
 SPOCK J 999.990

REFERENCE DATA

SWP = 8880.0000 50.0 FT. WWP = 836.7000 IN.
 LWP = 474.0000 IN. YWP = .0000 IN.
 SWP = 836.7000 IN. ZWP = .0000 IN.
 SCALE = .0040

RUN NO. 103/ 0 RWL = 6.85 GRADIENT INTERVAL = -5.00/ 5.00

WCH	ALPHA	ON	CLM	CT	CYN	CRN	CA	CAS	CL	CD	L/D
1.198	-1.890	-1.0880	.15530	-.01780	.00490	.00020	.20180	.08170	-.18080	.20340	-.70970
1.198	1.560	-.182510	.12190	-.01880	.00320	-.00030	.20180	.08170	-.02980	.20110	-.14220
1.198	3.810	.12420	.08940	-.02030	.00310	.00080	.19880	.08520	.11030	.20840	.53560
1.198	6.040	.25930	.06810	-.02150	.00320	-.00160	.19300	.06680	.23750	.22120	1.07270
1.198	8.270	.38420	.04780	-.02330	.00310	-.00050	.19100	.06830	.38240	.24590	1.47440
1.198	10.510	.50970	.03400	-.02650	.00360	-.00060	.18320	.06990	.48700	.27890	1.74890
1.198	12.750	.63790	.01580	-.02740	.00320	.00020	.17980	.06950	.61130	.32180	1.99880
1.198	15.030	.76430	-.00430	-.02980	.00320	.00020	.17300	.07330	.73180	.37370	1.94780
1.198	17.250	.88210	-.01130	-.02820	.00430	-.00010	.16790	.07400	.83100	.43380	1.91820
1.198	19.410	1.02150	-.02930	-.02870	.00410	-.00010	.16440	.07800	.90870	.49480	1.83720
1.198	21.490	1.11290	-.03370	-.02860	.00360	-.00010	.16000	.08120	.97890	.55870	1.75480
1.198	10.580	.53400	.03240	-.02810	.00610	-.00060	.18410	.06830	.49140	.27880	1.78370
1.198	.06575	-.01511	-.00082	.00001	-.00032	-.00074	.00090	.00090	.08217	.00071	.30394

GRADIENT

RUN NO. 104/ 0 RWL = 6.85 GRADIENT INTERVAL = -5.00/ 5.00

WCH	ALPHA	ON	CLM	CT	CYN	CRN	CA	CAS	CL	CD	L/D
1.945	-1.480	-.06770	.06130	-.01290	.00360	.00030	.14850	.03250	-.06840	.14910	-.44570
1.945	1.600	.02160	.04890	-.01340	.00340	.00010	.14480	.03310	.01750	.14590	.12060
1.945	3.740	.11040	.03290	-.01400	.00300	.00000	.13940	.03250	.10110	.14630	.69080
1.945	5.950	.20000	.02340	-.01430	.00280	.00000	.13740	.03200	.18470	.19730	1.17440
1.945	8.100	.28790	.01610	-.01420	.00280	-.00010	.13270	.03190	.26630	.17190	1.54810
1.945	10.270	.37720	.01070	-.01580	.00250	-.00040	.12950	.03270	.34820	.19350	1.79890
1.945	12.490	.46780	.00750	-.01580	.00220	-.00060	.12430	.03480	.42970	.22250	1.93040
1.945	14.700	.56190	.00380	-.01570	.00180	-.00060	.12020	.03620	.51290	.25880	1.98070
1.945	16.960	.65030	-.00120	-.01530	.00100	-.00060	.11630	.03670	.66750	.30000	1.96180
1.945	19.070	.74480	-.00820	-.01450	.00020	-.00070	.11140	.03730	.83900	.34870	1.91410
1.945	21.130	.83360	-.01100	-.01420	-.00030	-.00090	.10740	.03850	.97900	.40080	1.84340
1.945	10.250	.36840	.00760	-.01490	.00230	-.00040	.12390	.03170	.34080	.18710	1.61990
1.945	.04220	-.00873	-.00066	.00001	-.00014	-.00007	-.00216	.00005	.03988	-.00066	.28930

DATE 28 SEP 73

TABULATED SOURCE DATA - NSFC TWT 374

PAGE 70

NSFC 374 (0448) ORG 1398 W/ALT NOSE

(RST040) (18 JUL 73)

REFERENCE DATA

SREF = 2000.0000 36.47. 100P = 936.7500 IN.
 LREF = 474.6000 IN. 100P = .0000 IN.
 SREF = 936.7000 IN. 200P = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = -20.000
 AIRLON = .000 SOTLAP = .000
 SPOBOK = 999.990

RUN NO. 198/ 0 RWL = 4.09 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CN	CLM	CY	CYN	CLN	CA	CAB	CL	CD	L/O
2.990	-.520	-.03160	.00060	-.01130	.00280	.00040	.11090	.04680	-.08090	.11140	-.49380
2.990	1.430	.00390	.01970	-.01040	.00190	.00130	.10600	.01690	.00100	.10610	.00990
2.990	3.510	.06480	.01770	-.00930	.00180	.00020	.10410	.01700	.05840	.10790	.54180
2.990	5.590	.12980	.01680	-.00860	.00160	.00000	.09960	.01690	.11690	.11170	1.06370
2.990	7.680	.19730	.01530	-.01070	.00160	-.00030	.09630	.01690	.16280	.12190	1.49930
2.990	9.730	.26030	.01510	-.01080	.00130	-.00030	.09410	.01700	.13730	.13730	1.77440
2.990	11.810	.32280	.01430	-.01060	.00100	-.00060	.09220	.01720	.30690	.15840	1.93670
2.990	13.890	.40340	.01390	-.01120	.00080	-.00090	.08980	.01700	.37000	.18410	2.00970
2.990	15.990	.47730	.01270	-.01120	.00000	-.00090	.08770	.01700	.43470	.21590	2.01410
2.990	18.070	.54960	.01090	-.00940	-.00010	-.00080	.08630	.01740	.49370	.23250	1.96290
2.990	20.070	.62710	.00800	-.00840	-.00030	-.00090	.08370	.01700	.56020	.29390	1.90640
2.990	22.070	.70930	.00570	-.01100	.00130	-.00090	.08390	.01700	.24930	.13820	1.80450
2.990	24.070	.79601	-.00072	.00030	-.00015	-.00005	-.00169	.00010	.02703	-.00066	.24706

RUN NO. 160/ 0 RWL = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CN	CLM	CY	CYN	CLN	CA	CAB	CL	CD	L/O
4.990	-.520	-.04990	-.00420	-.01120	.00180	-.00140	.06410	.00340	-.04910	.08430	-.56130
4.990	1.440	-.01010	-.00210	-.01080	.00180	.00000	.06140	.00390	-.01210	.08110	-.14860
4.990	3.430	.03930	.00370	-.00900	.00140	-.00130	.07830	.00360	.03370	.06070	.41800
4.990	5.480	.08580	.00360	-.00840	.00060	-.00040	.07320	.00390	.07920	.06300	.94210
4.990	7.540	.13660	.00670	-.00860	.00140	-.00030	.07370	.00390	.12770	.09130	1.39630
4.990	9.590	.18660	.00760	-.01010	.00100	-.00060	.07190	.00390	.17210	.10190	1.68980
4.990	11.590	.24740	.00930	-.00920	-.00010	-.00070	.07130	.00370	.22800	.11960	1.90670
4.990	13.670	.30930	.00600	-.00750	-.00050	-.00090	.07140	.00390	.28360	.14230	1.98920
4.990	15.700	.37690	.01230	-.00720	-.00030	-.00090	.07080	.00370	.34370	.17020	2.01890
4.990	17.740	.44490	.01060	-.00790	-.00060	-.00090	.07100	.00390	.40210	.20320	1.97820
4.990	19.690	.51580	.01180	-.00660	-.00060	-.00060	.07090	.00370	.46170	.24030	1.91910
4.990	21.590	.59190	.00910	-.00730	.00060	-.00030	.07230	.00380	.17720	.10320	1.71630
4.990	23.500	.67228	.00199	.00036	-.00010	.00002	-.00141	.00005	.02166	-.00095	.25164

GRADIENT

DATE 20 SEP 75

TABULATED SOURCE DATA - MSFC TWT 574

MSFC 574(0448) CMB 1398 W/ALT NOSE

(087041) (18 JUL 75)

PARAMETRIC DATA

BETA = .000 ELEVTR = -20.000
 AIRSON = .000 BOFLAP = .000
 SPOORR = 999.990

REFERENCE DATA

SWP = 2000.0000 IN. FT. WRP = 636.7000 IN.
 LWP = 474.0000 IN. WRP = .0000 IN.
 SWP = 906.7000 IN. WRP = .0000 IN.
 SCALE = .0040

RUN NO. 102/ 0 RVL = 4.10 GRADIENT INTERVAL = -3.00/ 5.00

WACH	ALPHA	ON	CLM	CY	CYN	CEL	CA	CAS	CL	CD	L/D
2.900	20.830	.00000	.00010	-.01390	-.00190	-.00090	.06480	.01810	.56040	.30170	1.85700
2.900	22.830	.00000	.00010	-.01250	-.00250	-.00070	.06350	.01840	.61940	.34880	1.77590
2.900	24.700	.00000	.00010	-.01230	-.00290	-.00040	.06120	.01850	.68290	.40350	1.69140
2.900	26.800	.00000	.00010	-.01400	-.00330	-.00060	.07900	.01870	.74610	.46540	1.60300
2.900	28.800	.00000	.00010	-.01470	-.00340	-.00060	.07710	.01840	.81020	.53570	1.51220
2.900	30.900	.00000	.00010	-.01790	-.00340	-.00030	.07580	.01830	.86990	.60930	1.42270
2.900	32.900	.00000	.00010	-.02340	-.00300	-.00030	.07300	.01850	.92340	.68900	1.34010
2.900	34.900	.00000	.00010	-.02170	-.00300	-.00030	.07060	.01890	.97300	.77320	1.25770
2.900	36.900	.00000	.00010	-.02230	-.00340	-.00030	.06880	.01830	1.02200	.86610	1.17990
2.900	38.900	.00000	.00010	-.02350	-.00350	-.00030	.06610	.01790	1.06360	.95960	1.10630
2.900	40.900	.00000	.00010	-.02260	-.00350	-.00030	.06470	.01790	1.09560	1.05240	1.04100
2.900	42.900	.00000	.00010	-.01900	-.00160	-.00140	.07590	.01880	.87480	.61420	1.42390
2.900	44.900	.00000	.00010	-.00663	-.00017	-.00017	-.00099	-.00002	.72629	.03636	-.03979
2.900	46.900	.00000	.00010	-.00063	-.00017	-.00017	-.00099	-.00002	.72629	.03636	-.03979

RUN NO. 101/ 0 RVL = 4.90 GRADIENT INTERVAL = -3.00/ 5.00

WACH	ALPHA	ON	CLM	CY	CYN	CEL	CA	CAS	CL	CD	L/D
2.900	20.830	.00000	.01340	-.01000	-.00280	-.00090	.07290	.00340	.43790	.24620	1.85820
2.900	22.840	.00000	.01330	-.00990	-.00170	-.00030	.07260	.00340	.51830	.29050	1.78400
2.900	24.870	.00000	.01160	-.01110	-.00260	-.00030	.07210	.00390	.58280	.34200	1.70390
2.900	26.830	.00000	.01080	-.01140	-.00230	-.00040	.07290	.00370	.64620	.40120	1.61070
2.900	28.410	.00000	.00990	-.01190	-.00190	-.00040	.07360	.00370	.70650	.46700	1.51710
2.900	30.440	.00000	.00750	-.01290	-.00140	-.00030	.07260	.00370	.76980	.53610	1.43360
2.900	32.900	.00000	.00620	-.01600	-.00060	-.00090	.07290	.00360	.82820	.61360	1.34960
2.900	34.600	.00000	.00250	-.01710	-.00010	-.00110	.07110	.00360	.88390	.69650	1.26910
2.900	36.670	.00000	-.00310	-.01640	-.00090	-.00090	.06970	.00370	.93710	.78480	1.19410
2.900	38.700	.00000	-.00770	-.01660	-.00170	-.00090	.06630	.00360	.97940	.87240	1.12260
2.900	40.680	.00000	-.01080	-.01660	-.00170	-.00060	.06770	.00330	1.01910	.96480	1.05620
2.900	42.590	.00000	-.00820	-.01300	-.00140	-.00070	.07260	.00370	.77590	.54060	1.43430
2.900	44.376	.00000	-.00119	-.00342	-.00006	-.00002	-.00024	.00001	.02796	.03556	-.04003

(087042) (16 JUL 73)

TABULATED SOURCE DATA - HSCF TWT 374
HSCF 374 (0448) OBS 1398 W/ALT NOSE

DATE 20 SEP 75

PARAMETRIC DATA

BETA = .000 ELEVTR = -40.000
ALLCON = .000 BOC LAP = -14.250
SPDBRK = 999.990

REFERENCE DATA

SWEP = 2990.0000 88.77. 1MRP = 636.7000 IN.
LWEP = 474.8000 IN. 1MRP = .0000 IN.
SWEP = 938.7000 IN. 2MRP = .0000 IN.
SCALE = .0040

RUN NO. 114/ 0 RV/L = 4.96 GRADIENT INTERVAL = -5.00/ 5.00

NOCH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.001	-1.790	-3.5200	.23960	-.00100	-.00090	.00110	.14970	.03920	-.50300	.15820	-3.21970
.001	1.210	-.40410	.22980	-.00280	-.00070	.00090	.14870	.03650	-.40710	.13810	-2.94700
.001	3.320	-.29680	.22980	-.00330	-.00100	.00070	.14300	.03760	-.30440	.12550	-2.42420
.001	5.410	-.20510	.22910	-.00560	-.00060	.00130	.13560	.04140	-.21700	.11560	-1.07660
.001	7.590	-.09820	.22170	-.00520	-.00060	-.00010	.12420	.04140	-.10760	.11100	-.96860
.001	9.820	.00370	.21470	-.00690	-.00090	-.00060	.11120	.04160	.01460	.11330	.12700
.001	11.740	.16540	.20730	-.00690	-.00160	.00110	.10280	.04070	.13610	.13330	1.02060
.001	13.900	.29120	.20380	-.01110	-.00090	-.00230	.09620	.03910	.25910	.16330	1.56690
.001	15.990	.41020	.20830	-.01460	-.00090	-.00010	.09030	.03850	.36950	.19990	1.84800
.001	18.060	.52510	.19740	-.02170	-.00190	-.00060	.08290	.03720	.24490	.24490	1.97130
.001	20.120	.66370	.19660	-.02730	-.00230	-.00260	.07700	.04120	.59670	.30070	1.98430
.001	9.820	.02920	.21640	-.00930	-.00220	-.00060	.11130	.04120	.01050	.11470	.09150
.001	GRADIENT	.05120	-.00268	-.00056	-.00012	-.00010	-.00160	-.00036	.04879	-.00752	.19612

RUN NO. 115/ 0 RV/L = 6.24 GRADIENT INTERVAL = -5.00/ 5.00

NOCH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.001	-1.800	-.47370	.23300	-.00330	-.00090	.00020	.19790	.04600	-.47050	.20540	-2.29050
.001	1.130	-.36080	.22280	-.00440	-.00090	.00020	.19290	.04560	-.36440	.18370	-1.96180
.001	3.320	-.24500	.21610	-.00660	-.00130	.00020	.18690	.04650	-.25540	.17240	-1.40160
.001	5.410	-.11920	.20800	-.01090	-.00090	.00020	.17980	.05070	-.13200	.16790	-.76640
.001	7.760	.04420	.19900	-.01320	-.00020	-.00030	.16900	.05010	.02100	.17340	.12120
.001	9.820	.19340	.18810	-.01560	-.00120	-.00040	.15540	.04820	.16360	.16650	.07700
.001	12.170	.34320	.15490	-.01950	-.00000	.00000	.14560	.04760	.30670	.21510	1.42550
.001	14.460	.50960	.13750	-.01810	.00000	.00020	.13380	.04670	.46020	.25690	1.79130
.001	16.650	.75170	.12600	-.01950	.00010	-.00060	.12470	.04710	.58860	.30020	1.92220
.001	18.620	.78290	.11940	-.02130	-.00040	-.00020	.11340	.05050	.70400	.35980	1.95660
.001	20.860	.86800	.12630	-.01690	-.00030	-.00020	.10650	.05350	.77300	.41690	1.89000
.001	GRADIENT	.05416	-.00399	-.00078	-.00010	-.00060	.15650	.05096	-.05096	-.00780	.19204

PARAMETRIC DATA

REFERENCE DATA

BETA = .000 ELEVTR = -40.000
 AILNON = .000 BOFLAP = -14.250
 SPORCK = 999.990

8827 = 2490.0000 94.47, 198P = 936.7000 IN.
 1827 = 474.0000 IN, 198P = .0000 IN.
 8827 = 936.7000 IN, 298P = .0000 IN.
 SCALE = .0040

RUN NO. 116/ 0 RV/L = 6.68 GRADIENT INTERVAL = -5.00/ 5.00

NUCH	ALPHA	CM	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/O
1.999	-0.800	-41220	.25410	-.00190	-.00190	-.000010	.28930	.07010	-.40770	.29580	-1.37920
1.999	1.270	-83400	.21880	-.00140	-.00140	-.00120	.27730	.07060	-.26010	.27160	-.93760
1.999	3.300	-11100	.19640	-.00210	-.00210	-.00210	.27500	.07310	-.12760	.28570	-.48030
1.999	9.800	.09050	.16710	-.00060	-.00060	-.00170	.26720	.07600	.02350	.27090	.08590
1.999	8.000	.20020	.14540	-.00020	-.00020	-.00120	.25910	.07710	.18240	.28070	.57870
1.999	10.320	.34980	.12880	-.00000	-.00000	-.00160	.24580	.07830	.29910	.30410	.96360
1.999	12.970	.49250	.11260	-.00070	-.00070	-.00140	.23590	.07770	.42930	.33750	1.27180
1.999	14.970	.64190	.09100	-.00120	-.00120	-.00120	.22820	.07370	.56390	.37760	1.49320
1.999	17.110	.78880	.07310	-.00240	-.00240	-.00150	.19790	.06750	.69660	.42160	1.65210
1.999	19.300	.88940	.07290	-.00390	-.00390	-.00090	.19100	.07030	.78370	.47770	1.64470
1.999	21.360	.99500	.07320	-.02690	-.00130	-.00060	.18360	.07410	.85930	.53410	1.60860
1.999	10.330	.39560	.12780	-.01330	-.00020	-.00170	.24450	.07730	.30810	.30440	1.00350
68401827		.06826	-.01308	-.00075	-.00014	-.00045	-.00368	.00266	.06347	-.00674	.20390

RUN NO. 106/ 0 RV/L = 6.68 GRADIENT INTERVAL = -5.00/ 5.00

NUCH	ALPHA	CM	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/O
1.999	-0.800	-16870	.10640	-.01020	-.00200	-.00030	.19220	.03530	-.16050	.19400	-.62770
1.999	1.440	-.08790	.09000	-.00990	.00160	-.00060	.18210	.03570	-.07240	.18030	-.40160
1.999	3.800	.03020	.07400	-.01050	.00110	-.00060	.16930	.03450	.01940	.17090	.11390
1.999	5.830	.12700	.06330	-.01040	.00060	-.00040	.16480	.03550	.10960	.17690	.61970
1.999	7.990	.21550	.05800	-.01100	.00060	-.00050	.15700	.03530	.19160	.18550	1.03310
1.999	10.220	.31170	.05020	-.01250	.00070	-.00030	.15640	.03690	.27900	.20930	1.33260
1.999	12.390	.36800	.03330	-.01440	.00140	-.00020	.14390	.03750	.34800	.22590	1.55410
1.999	14.540	.47830	.04960	-.01460	.00090	-.00040	.13700	.03720	.42860	.23280	1.69330
1.999	16.790	.57570	.04700	-.01480	.00050	-.00040	.12970	.03730	.51240	.29440	1.74030
1.999	18.990	.67130	.04360	-.01510	.00040	-.00030	.12220	.03690	.59260	.34120	1.73660
1.999	21.080	.76130	.03970	-.01360	-.00060	.00000	.11740	.04070	.66650	.36770	1.71890
1.999	10.140	.29050	.05250	-.01230	-.00090	-.00070	.14740	.03540	.25990	.19620	1.32440
68401827		.04536	-.00762	-.00007	-.00021	-.00012	-.00359	-.00019	.04233	-.00343	.22189

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TABULATED SOURCE DATA - NSFC TWT 574

(R87042) (18 JUL 75)

PARAMETRIC DATA

BETA = .000 ELEVTR = -40.000
 ATILNOM = .000 BOFLAP = -14.250
 SPDRK = 999.990

REFERENCE DATA

REF = 2840.0000 36.47. 3687 = 636.7000 IN.
 LREF = 474.0000 IN. 3688 = .0000 IN.
 BREF = 998.7000 IN. 3689 = .0000 IN.
 SCALE = .0040

RUN NO. 190/ 0 RWL = 4.11 GRADIENT INTERVAL = -5.00/ 5.00

WCH	ALPHA	CH	CLM	CY	CYN	COL	CA	CAB	CL	CD	L/D
2.980	-1.980	-1.0820	.04870	-.00820	.00180	.00020	.13490	.01810	-.10770	.13590	-.79230
2.980	1.410	-.05190	.04920	-.00950	.00110	.00000	.13030	.01820	-.05520	.12900	-.42780
2.980	3.480	.03250	.04810	-.00880	.00070	.00000	.12550	.01810	.00470	.12590	.03780
2.980	5.280	.07680	.04480	-.00970	.00150	.00010	.11790	.01840	.06500	.12480	.32160
2.980	7.600	.14340	.04310	-.01070	.00130	-.00020	.11250	.01870	.12920	.13080	.98790
2.980	9.700	.21370	.04440	-.01080	.00080	-.00140	.10620	.01850	.19240	.14270	1.34820
2.980	11.700	.28070	.04380	-.01180	.00010	-.00040	.10250	.01850	.23210	.18080	1.57690
2.980	13.800	.34720	.04310	-.01220	.00000	.00000	.10240	.01780	.32210	.18530	1.73630
2.980	15.900	.42300	.04440	-.01290	-.00050	-.00030	.09900	.01780	.36140	.21200	1.79830
2.980	18.040	.49810	.04470	-.01150	-.00170	-.00020	.09650	.01790	.44370	.24600	1.80340
2.980	20.000	.57250	.04290	-.01030	-.00210	.00020	.09370	.01850	.50590	.28390	1.78190
2.980	22.000	.64800	.04350	-.01130	.00060	-.00040	.10830	.01850	.19680	.14350	1.37070
2.980	9.710	.21880	.04350	-.01130	.00060	-.00040	.10830	.01850	.19680	.14350	1.37070
2.980	GRADIENT	.03016	-.00040	-.00010	-.00027	-.00005	-.00239	-.00000	.02797	-.00248	.20663

RUN NO. 149/ 0 RWL = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

WCH	ALPHA	CH	CLM	CY	CYN	COL	CA	CAB	CL	CD	L/D
4.950	-1.540	-.09870	.02420	-.00890	.00150	-.00020	.11100	.00420	-.09760	.11190	-.87230
4.950	1.400	-.05100	.02500	-.00880	.00020	-.00070	.10410	.00450	-.05350	.10280	-.52070
4.950	3.430	-.00400	.02390	-.00910	-.00010	.00000	.09830	.00450	-.00980	.09760	-.10120
4.950	5.470	.05080	.02510	-.00750	-.00050	.00000	.09230	.00470	.04150	.09670	.42940
4.950	7.510	.10420	.02670	-.00790	-.00050	-.00030	.08750	.00460	.09190	.10040	.91320
4.950	9.540	.15610	.02770	-.00700	-.00110	-.00050	.08400	.00470	.14000	.10870	1.28750
4.950	11.580	.21260	.03150	-.00740	-.00090	-.00070	.08170	.00470	.19180	.12280	1.56210
4.950	13.680	.27350	.03410	-.00730	-.00060	-.00150	.07980	.00480	.24880	.14270	1.74380
4.950	15.690	.34100	.03410	-.00670	-.00180	-.00060	.07770	.00460	.30750	.16700	1.83940
4.950	17.730	.40820	.03460	-.00740	-.00280	-.00040	.07640	.00470	.36640	.19740	1.85350
4.950	19.700	.47690	.03530	-.00680	-.00270	-.00040	.07570	.00470	.42340	.23210	1.82410
4.950	9.540	.15760	.02590	-.00850	-.00140	.00110	.08370	.00470	.14170	.10880	1.30260
4.950	GRADIENT	.02305	-.00017	.00017	-.00040	.00005	-.00327	.00007	.02211	-.00359	.19433

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TABULATED SOURCE DATA - HQFC TWT 374

MSFC 574 (CA48) ORB 1398 W/ALT NOSE

REFERENCE DATA

BRZF	=	5993.0000	90.FT.	Y99P	=	838.7003	IN.
LCZF	=	474.8000	IN.	Y98P	=	.0000	IN.
BRZF	=	996.7003	IN.	Z98P	=	.0000	IN.
SCALE	=	.0049					

(R07043) PAGE 75 (10 JUL 73)

PARAMETRIC DATA

BETA =	.000	ELEVTR =	-40.000
AILROW =	.000	BOFLAP =	-14.250
SPCSBK =	999.990		

RUN NO. 147/ 0 RVL = 4.51 GRADIENT INTERVAL = -3.00/ 5.00

Run No.	Alpha	CN	CLM	CY	CTM	CR	CA	CAB	CL	CD	L/D
2.990	20.500	.37340	.04490	-.01270	-.00290	-.00030	.09400	.01800	.30370		
2.990	22.010	.64980	.04310	-.01000	-.00330	.00000	.09130	.01910	.56490		1.73970
2.990	24.030	.79130	.04890	-.01430	-.00340	.00000	.08980	.01910	.33420		1.09080
2.990	26.770	.61340	.04290	-.01090	-.00340	.00000	.08300	.01870	.62770		1.02980
2.990	29.060	.89960	.04190	-.01370	-.00430	.00030	.08260	.01860	.68700		1.02990
2.990	30.980	.96230	.04140	-.01760	-.00290	-.00070	.08020	.01870	.74910		1.55470
2.990	33.080	1.07440	.03980	-.02240	-.00030	-.00230	.07780	.01870	.80160		1.47590
2.990	35.190	1.18420	.03790	-.02100	-.00090	.00240	.07360	.01870	.85910		1.39340
2.990	37.270	1.25190	.03630	-.02060	-.00090	.00240	.07340	.01860	.90780		1.31760
2.990	39.370	1.33360	.03790	-.02060	-.00090	.00240	.07120	.01820	.95170		1.23880
2.990	41.320	1.41880	.03960	-.02130	-.00140	-.00220	.06960	.01820	.98740		1.16330
2.990	30.980	.96020	.04180	-.01980	-.00230	-.00060	.06930	.01800	.99000		1.09410
2.990	30.980	.96020	.04180	-.00057	.00015	-.00000	.06930	.01800	.99000		1.02910
2.990	30.980	.96020	.04180	-.00057	.00015	-.00000	.06930	.01800	.99000		1.39360
2.990	30.980	.96020	.04180	-.00057	.00015	-.00000	.06930	.01800	.99000		1.03393
2.990	30.980	.96020	.04180	-.00057	.00015	-.00000	.06930	.01800	.99000		1.03329

[illegible]

WACH	ALPHA	CN	CLM	CY	CYN	COL	CA	CAS	CL	CD	L/D
4.929	20.230	.49060	-.04100	-.00960	-.00320	.00000	.07600	.00400	.43340	.24310	1.76240
4.939	22.220	.56210	-.04180	-.00960	-.00400	.00330	.07760	.00420	.49090	.28450	1.72560
4.939	24.270	.64200	-.04200	-.01090	-.00470	.00380	.07720	.00420	.55350	.33440	1.65510
4.939	26.330	.72590	-.04420	-.01090	-.00420	.00120	.07840	.00440	.60390	.39140	1.56660
4.939	28.360	.80720	-.04530	-.01260	-.00330	.00060	.07770	.00440	.67320	.45210	1.48090
4.939	30.440	.89460	-.05020	-.01390	-.00300	.00070	.07720	.00450	.73220	.51990	1.40620
4.939	32.500	.96200	-.04700	-.01690	-.00260	.00110	.07640	.00440	.76710	.59220	1.32920
4.939	34.800	1.07180	-.04770	-.01800	-.00250	.00100	.07520	.00440	.83930	.67040	1.25180
4.939	36.640	1.18330	-.04970	-.01650	-.00260	.00120	.07430	.00420	.88920	.75390	1.17920
4.939	38.690	1.25370	-.04750	-.01760	-.00310	.00140	.07220	.00410	.93240	.83960	1.11060
4.939	40.630	1.33300	-.05010	-.01560	-.00320	.00160	.07150	.00360	.96510	.92230	1.04620
4.939	30.440	.89350	-.04300	-.01460	-.00350	.00090	.07690	.00430	.73310	.52010	1.40950
4.939	30.440	.04171	.00044	-.00045	.00006	-.00001	-.00031	-.00001	.02658	.03358	-.03706

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TABULATED SOURCE DATA - NSFC TMT 574

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NSFC 574 (0448) CRB 1398 W/ALT NOSE

(R67044) (18 JUL 73)

REFERENCE DATA

REF = 2000.0000 50.00 FT. 1000" = 636.7000 IN.
 LREF = 474.0000 IN. 1000" = .0000 IN.
 RREF = 956.7000 IN. 2000" = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 AIRCON = .000 BDFLAP = -14.250
 SPDRK = 999.990

RUN NO. 113/ 0 RV/L = 4.97 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CN	CLN	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.000	-1.500	-.09030	.06990	-.01120	.00840	.00180	.09980	.03000	-.06980	.06060	-1.48190
.000	1.400	.00540	.06370	-.01310	.00210	.00190	.09790	.02920	.00390	.03770	.06660
.000	3.500	.11090	.06250	-.01560	.00200	.00190	.09130	.02690	.10790	.03620	1.84740
.000	5.670	.21070	.06470	-.01630	.00260	.00170	.04260	.02940	.20340	.06330	3.24370
.000	7.780	.38810	.05990	-.01990	.00310	.00120	.03160	.03070	.32080	.07980	4.23190
.000	9.880	.44440	.05310	-.01990	.00220	.00190	.02260	.03270	.43390	.09670	4.39200
.000	11.980	.56860	.04680	-.02170	.00220	.00390	.02670	.03630	.54500	.14300	3.81000
.000	14.110	.67900	.04190	-.02630	.00330	.00200	.02690	.03630	.65200	.19180	3.40280
.000	16.200	.76660	.03510	-.02940	.00410	.00100	.03090	.04120	.74690	.24990	3.00100
.000	18.330	.95100	.02370	-.03430	.00430	.00120	.02400	.04910	.89520	.32190	2.78080
.000	20.390	1.09310	.01580	-.03560	.00440	.00210	.02020	.04830	1.01780	.39910	2.54980
.000	9.890	.45210	.05380	-.02080	.00240	.00100	.02340	.03190	.44130	.10070	4.36090
GRADIENT		.04932	-.02388	-.00063	.00010	.00002	-.00209	-.00027	.04836	-.00058	.81822

RUN NO. 112/ 0 RV/L = 6.24 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CN	CLN	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.007	-1.510	-.10320	.06630	-.01710	.00390	.00200	.07000	.02990	-.10290	.07090	-1.44580
.007	1.530	.01350	.07960	-.01860	.00390	.00230	.07000	.02900	.01160	.07030	.16610
.007	2.730	.13770	.06900	-.02100	.00370	.00230	.06960	.02930	.13290	.07640	1.69480
.007	5.910	.25740	.05660	-.02140	.00360	.00140	.07060	.02930	.24870	.09870	2.57010
.007	9.100	.37540	.04280	-.02310	.00360	.00010	.07120	.03110	.36160	.12340	2.92890
.007	10.230	.46940	.02820	-.02390	.00340	.00090	.07160	.03210	.46900	.15670	2.99160
.007	12.430	.62400	.01630	-.02530	.00250	.00230	.07170	.03360	.59400	.21440	2.91800
.007	14.670	.76340	.00360	-.02690	.00420	.00360	.07150	.03980	.71940	.26630	2.70130
.007	16.630	.86160	.00120	-.03000	.00380	.00260	.07640	.04470	.82170	.32640	2.50160
.007	19.020	.99600	.00300	-.03060	.00380	.00250	.08070	.05120	.91520	.40110	2.26170
.007	21.030	1.06140	.02610	-.02930	.00340	.00360	.08150	.05930	.96140	.45710	2.10300
.007	10.250	.50060	.02610	-.02330	.00310	.00070	.07140	.03210	.48020	.15990	3.01060
GRADIENT		.05691	-.03456	-.00092	.00002	.00007	-.00010	-.00004	.05551	.00179	.74002

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(R07044) (10 JUL 75)

TABULATED SOURCE DATA - MSFC TWT 574

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 ATLON = .000 BOFLAP = -14.250
 SPCBRK = 999.990

REFERENCE DATA

SRCT = 2000.0000 50. FT. XMRP = 636.7000 IN.
 LREF = 474.0000 IN. YMRP = .0000 IN.
 SRCT = 996.7000 IN. ZMRP = .0000 IN.
 SCALE = .0000

RUN NO. 111/ 0 RM/L = 6.65 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
1.802	-3.90	-0.0020	.03760	-.01510	.00340	.00060	.16620	.03290	-.00120	.16620	-.00720
1.802	1.710	.13000	.00030	-.01630	.00350	.00060	.16510	.05190	.12580	.16900	.74450
1.802	3.990	.20000	.00400	-.01840	.00360	.00040	.16210	.05210	.25180	.17990	1.39930
1.802	6.170	.30000	-.01950	-.01930	.00390	.00010	.15660	.05310	.37160	.19970	1.66090
1.802	8.360	.51110	-.02390	-.01890	.00330	-.00070	.15480	.05490	.48300	.22770	2.12080
1.802	10.620	.64210	-.03930	-.02730	.00570	.00210	.15240	.05800	.60300	.26810	2.24840
1.802	12.890	.78120	-.05040	-.02680	.00460	.00130	.15070	.06260	.72810	.32060	2.26940
1.802	15.120	.90670	-.07020	-.02430	.00300	-.00100	.14690	.06320	.83640	.38040	2.19680
1.802	17.350	1.02430	-.07890	-.02680	.00270	-.00160	.14740	.06830	.93390	.44570	2.09330
1.802	19.510	1.12640	-.07910	-.02670	.00260	-.00170	.14600	.07240	1.01290	.51400	1.97080
1.802	21.560	1.22000	-.07870	-.02730	.00190	-.00130	.14140	.07450	1.08240	.58030	1.86500
1.802	10.620	.64310	-.03950	-.02710	.00560	.00230	.15180	.05760	.60600	.26810	2.25980
GRADIENT		.06136	-.01242	-.00076	.00005	-.00005	-.06155	-.00016	.05640	.00316	.32444

RUN NO. 165/ 0 RM/L = 6.84 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	G	CY	CYN	CBL	CA	CAB	CL	CD	L/D
1.952	-4.40	-0.0040	.02260	-.01240	.00260	.00010	.13410	.03080	-.00360	.13410	-.02860
1.952	1.610	.07880	.01110	-.01300	.00270	-.00020	.13100	.03030	.07900	.13320	.6350
1.952	3.790	.16660	.00160	-.01330	.00230	-.00010	.13020	.03050	.15760	.14100	1.11800
1.952	5.970	.27000	-.00890	-.01410	.00240	-.00040	.12880	.02980	.23620	.15440	1.54240
1.952	8.160	.34310	-.01360	-.01470	.00200	-.00040	.12690	.03020	.32160	.17440	1.84410
1.952	10.340	.43190	-.01820	-.01510	.00160	-.00060	.12311	.03140	.40270	.19910	2.02180
1.952	12.560	.52260	-.02100	-.01470	.00130	-.00060	.12000	.03180	.48400	.23080	2.09660
1.952	14.990	.60600	-.02360	-.01600	.00110	-.00100	.11560	.03270	.55680	.26560	2.09590
1.952	16.960	.71100	-.02930	-.01590	.00030	-.00090	.11390	.03380	.64680	.31640	2.04400
1.952	19.170	.80650	-.03440	-.01450	-.00030	-.00070	.11080	.03570	.72730	.37030	1.96410
1.952	21.250	.90530	-.03660	-.01450	-.00110	-.00060	.10600	.03660	.80150	.42890	1.87540
1.952	10.330	.42810	-.01710	-.01540	.00190	-.00060	.12150	.03120	.39930	.19640	2.03340
GRADIENT		.04052	-.00496	-.00021	-.00002	-.00005	-.00092	.00007	.05615	.00165	.27089

DATE 26 SEP 75

TABULATED SOURCE DATA - NSFC T-7 574

(R87544) (16 JUL 75)

REFERENCE DATA

REF = 2690.0000 54.17. XMRP = 936.7500 IN.
LREF = 474.8000 IN. YMRP = .0000 IN.
MREF = 936.7000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
AIRLON = .005 BOFLAP = -14.250
SPDBRK = 999.990

RUN NO. 131/ 0 RV/L = 4.10 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.800	-1.510	-0.02700	-0.00360	-0.01170	-0.01130	.00000	.10550	.01660	-.02610	.10370	-.24690
2.900	1.480	-0.02750	-0.00430	-0.01120	-0.01120	.00000	.10340	.01690	.02490	.10410	-.23930
2.950	3.320	-0.03200	-0.00440	-0.01080	-0.00770	-.00020	.10010	.01730	.07690	.10310	.75050
2.990	5.590	-0.03900	-0.00590	-0.01120	-0.00660	-.00040	.09820	.01700	.13540	.11190	1.20950
2.990	7.660	-0.04200	-0.00620	-0.01130	-0.00680	-.00050	.09320	.01720	.19700	.12060	1.63310
2.990	9.740	-0.04800	-0.00700	-0.01250	-0.00800	-.00070	.09120	.01740	.26130	.13740	1.90110
2.990	11.820	-0.05000	-0.00700	-0.01170	-0.00770	-.00080	.08940	.01750	.32450	.15930	2.03740
2.990	13.930	-0.05300	-0.00810	-0.01390	-0.00810	-.00110	.08740	.01760	.36690	.16610	2.07880
2.990	15.990	-0.05700	-0.00820	-0.01220	-0.00840	-.00110	.08530	.01740	.45110	.21800	2.06600
2.990	18.070	-0.06300	-0.00430	-0.01090	-0.00800	-.00090	.08420	.01750	.51670	.25700	2.00760
2.990	20.000	-0.06900	-0.00550	-0.01130	-0.00810	-.00080	.08190	.01740	.58120	.29920	1.94220
2.990	21.900	-0.07400	-0.00620	-0.01200	-0.00800	-.00070	.09090	.01730	.62700	.13820	1.93260
2.990	23.800	-0.07800	-0.00610	-0.00822	-0.00822	-.00005	-.00005	.00017	.02606	-.00014	.24750

RUN NO. 132/ 0 RV/L = 4.91 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.999	-1.510	-0.03440	-0.00040	-0.01090	-0.00200	.00000	.08240	.00380	-.03360	.08270	-.40660
4.999	1.420	-0.03660	-0.00090	-0.01380	-0.00190	.00000	.08020	.00390	.00460	.08040	.05770
4.999	3.430	-0.04630	-0.00480	-0.01020	-0.00070	-.00050	.07750	.00410	.04420	.08030	.55050
4.999	5.470	-0.05700	-0.00680	-0.00960	-0.00060	.00010	.07440	.00420	.08950	.08340	1.07310
4.999	7.520	-0.06440	-0.00720	-0.01060	-0.00030	-.00010	.07230	.00420	.13370	.09060	1.47610
4.999	9.560	-0.06900	-0.00750	-0.00900	-0.00050	-.00050	.07110	.00420	.16420	.10320	1.78480
4.999	11.590	-0.07210	-0.00820	-0.01010	-0.00020	-.00050	.07000	.00430	.23670	.12070	1.96080
4.999	13.690	-0.07480	-0.00880	-0.00880	-0.00060	.00010	.06910	.00430	.29370	.14410	2.05160
4.999	15.720	-0.07600	-0.00910	-0.01010	-0.00060	-.00010	.06820	.00410	.35670	.17290	2.07490
4.999	17.750	-0.07800	-0.00960	-0.00810	-0.00060	-.00010	.06920	.00410	.41470	.20540	2.01860
4.999	19.700	-0.08000	-0.00910	-0.00820	-0.00110	-.00040	.06920	.00420	.47640	.24410	1.95110
4.999	21.600	-0.08210	-0.00970	-0.00990	-0.00130	-.00020	.07110	.00420	.58120	.10370	1.80730
4.999	23.500	-0.08440	-0.00940	-0.00809	-0.00133	-.00015	-.00124	.00019	.01975	-.00061	.24298

DATE 26 SEP 73

TABULATED SOURCE DATA - NSFC TWT 574
NSFC 574 (M48) ORB 1395 W/ALT NOSE

(R67045) (10 JUL 73)

PAPAMETRIC DATA

BETA = .000 ELEVTR = .000
AILRON = .000 BOFLAP = -14.250
SPDRK = 999.990

REFERENCE DATA

SACF = 2990.0000 90.FT. YMRP = 938.7000 IN.
LNEY = 474.8000 IN. YMRP = .0000 IN.
BREF = 931.7000 IN. ZMRP = .0000 IN.
SCALE = .0040

RUN NO. 154/ 0 RN/L = 4.10 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	20.800	.65210	-.00360	-.01420	-.00240	-.00140	.00190	.01740	.36140	.30840	1.69710
2.990	22.800	.73160	-.01030	-.01300	-.00300	-.00100	.00020	.01790	.64440	.33550	1.61220
2.990	24.700	.81700	-.01460	-.01310	-.00350	-.00060	.07870	.01800	.70920	.41320	1.71610
2.990	26.800	.90620	-.01910	-.01400	-.00360	-.00100	.07720	.01820	.77390	.47780	1.61970
2.990	28.900	.99470	-.02390	-.01540	-.00400	-.00050	.07550	.01780	.83420	.54700	1.32480
2.990	31.000	1.08920	-.02940	-.01630	-.00240	-.00020	.07440	.01810	.89520	.62490	1.43230
2.990	33.100	1.18330	-.03410	-.02230	.00070	-.00030	.07310	.01840	.95030	.70710	1.34400
2.990	35.200	1.27010	-.04130	-.02300	.00010	-.00090	.07100	.01850	1.00440	.79560	1.26040
2.990	37.300	1.37420	-.04760	-.02360	.00010	-.00410	.06950	.01850	1.05020	.86990	1.18130
2.990	39.400	1.46780	-.05410	-.02300	.00010	-.00410	.06770	.01840	1.09040	.94680	1.10710
2.990	41.400	1.56060	-.06160	-.02190	.00080	-.00360	.06650	.01830	1.12560	1.06300	1.03930
2.990	43.000	1.65420	-.06920	-.01880	-.00250	-.00210	.07400	.01820	.89960	.62720	1.43410
2.990	44.300	1.74780	-.07680	-.00950	.00016	-.00016	-.00073	.00004	.02651	.03746	-.04174

RUN NO. 153/ 0 RN/L = 4.92 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.959	20.200	.52960	-.00020	-.00940	-.00080	-.00190	.07010	.00350	.47270	.24920	1.69630
4.959	22.200	.60800	-.00280	-.00960	-.00170	-.00160	.06930	.00370	.53650	.29430	1.62270
4.959	24.200	.69100	-.00310	-.01000	-.00260	-.00160	.06890	.00360	.60130	.34650	1.73330
4.959	26.300	.77820	-.00900	-.01230	-.00270	-.00160	.06960	.00390	.66650	.40760	1.63500
4.959	28.400	.87050	-.01260	-.01340	-.00270	-.00200	.06940	.00390	.73260	.47530	1.54130
4.959	30.400	.96240	-.01760	-.01360	-.00100	-.00240	.06900	.00410	.79460	.54730	1.45180
4.959	32.500	1.05970	-.02300	-.01700	-.00100	-.00270	.06870	.00400	.85680	.62760	1.36490
4.959	34.600	1.15790	-.02700	-.01750	-.00040	-.00310	.06860	.00390	.91400	.71420	1.27960
4.959	36.600	1.25520	-.03430	-.01740	-.00120	-.00250	.06760	.00360	.96630	.80390	1.20190
4.959	38.700	1.34930	-.04090	-.01720	-.00180	-.00270	.06730	.00360	1.01070	.89640	1.12740
4.959	40.700	1.44290	-.04710	-.01700	-.00180	-.00270	.06630	.00360	1.05110	.99070	1.06090
4.959	42.800	1.53670	-.05330	-.01650	-.00180	-.00210	.06970	.00390	.79640	.55040	1.45080
4.959	44.900	1.63050	-.06231	-.00946	.000031	-.00007	-.00015	.00001	.02880	.03855	-.04161

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TABULATED SOURCE DATA - NSFC TWT 374

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NSFC 574 (0448) ORB 1398 W/ALT NOSE

(R87048) (18 JUL 73)

REFERENCE DATA

REF = 8990.000 24. FT. XREF = 839.7000 IN.
 LREF = 474.8000 IN. YREF = .0000 IN.
 SREF = 936.7000 IN. ZREF = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 AIRRON = .000 BOFLAP = 13.750
 SPOBRK = 999.990

RUN NO. 108/ 0 RV/L = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.998	-.490	-.01250	.01330	-.01140	.00300	.00120	.06450	.03360	-.01190	.06460	-.16530
.998	1.490	.07770	.01200	-.01350	.00310	.00130	.06290	.03430	.07610	.06480	1.17580
.998	3.490	.18260	.00930	-.01180	.00270	.00100	.05720	.03140	.17690	.06860	2.80310
.998	5.490	.28630	.00740	-.01470	.00260	.00090	.04760	.03240	.28010	.07600	3.68450
.998	7.490	.40390	.00420	-.01567	.00230	.00080	.03810	.03310	.39500	.09260	4.26240
.998	9.490	.52430	.00070	-.01780	.00270	.00090	.03010	.03470	.51130	.12000	4.26060
.998	11.490	.64190	.00090	-.02090	.00290	.00080	.03240	.03360	.62110	.16330	3.75110
.998	13.490	.75070	.00120	-.02400	.00410	.00010	.03360	.03590	.71970	.21620	3.31470
.998	15.490	.87040	.00190	-.03150	.00320	.00100	.03760	.04050	.82510	.27970	2.94990
.998	17.490	1.04110	.00350	-.03460	.00360	.00220	.03370	.04680	.97740	.36000	2.71460
.998	19.490	1.18220	.00420	-.03590	.00480	.00310	.03060	.03290	1.09740	.44060	2.48940
.998	21.490	1.34110	.00440	-.04100	.00260	.00040	.02990	.03320	.12160	.52090	4.28320
.998	23.490	1.52410	.00100	-.01960	.00260	.00040	.02990	.03320	.04667	.00099	.68221
.998	25.490	1.72777	.00093	-.00063	.00007	.00003	-.00179	-.00055			

GRADIENT

RUN NO. 108/ 0 RV/L = 6.24 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.997	-.490	-.02940	.02630	-.02190	.00440	.00100	.07520	.03670	-.02670	.07530	-.36090
.997	1.560	.09260	.01660	-.02200	.00440	.00090	.07710	.03630	.09070	.07960	1.13630
.997	3.770	.21530	.00660	-.02100	.00370	.00110	.07760	.03610	.20970	.08170	2.28720
.997	5.950	.33360	.00470	-.02440	.00390	.00020	.07610	.03640	.32370	.11230	2.68190
.997	8.110	.45240	.00240	-.02500	.00360	.00080	.07660	.03660	.43670	.14170	3.06220
.997	10.290	.57360	.00310	-.02590	.00370	.00120	.07790	.03750	.55030	.17910	3.07340
.997	12.470	.70780	.00490	-.02560	.00250	.00190	.07930	.04000	.67390	.23040	2.92460
.997	14.690	.84690	.00360	-.03010	.00400	.00460	.08020	.04580	.80060	.29300	2.73310
.997	16.890	.96340	.00760	-.03260	.00370	.00320	.08460	.03230	.91640	.36680	2.49600
.997	19.060	1.10310	.00920	-.03130	.00160	.00250	.08750	.06090	1.01470	.44310	2.26640
.997	21.110	1.19120	.00640	-.02970	.00320	.00430	.09070	.06770	1.07850	.51360	2.09900
.997	23.290	1.37760	.00340	-.02620	.00330	.00120	.07670	.03790	.55420	.16160	3.06720
.997	25.430	1.5743	.00310	-.00021	.00017	.00002	.00036	-.00014	.05595	.00362	.62333

GRADIENT

DATE 26 SEP 73

TABULATED SOURCE DATA - HSFC TWT 574

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HSFC 574 (0448) CRB 1398 W/ALT NOSE

(R87048) (18 JUL 73)

REFERENCE DATA

SREF = 2990.0700 36.47. YARP = 838.7000 IN.
 LREF = 474.8000 IN. YARP = .0000 IN.
 SREF = 934.7000 IN. ZARP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .005 ELEVTR = .000
 ALLRON = .000 ROFLAP = 13.750
 SPDRK = 999.990

RUN NO. 110/ 0 RV/L = 6.65 GRADIENT INTERVAL = -5.00/ 5.00

MMON	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
1.199	-.380	.04127	.01780	-.01680	.00410	.00090	.18090	.06320	.04240	.18060	.23490
1.199	1.720	.17480	-.01320	-.01800	.00420	.00040	.18020	.06280	.16920	.18540	.91290
1.199	3.980	.31070	-.04280	-.01980	.00430	.00000	.17800	.06180	.29770	.19910	1.49500
1.199	.43890	.43890	-.06390	-.02780	.00420	.00000	.17500	.06280	.41730	.22130	1.88680
1.199	8.390	.59840	-.07880	-.02080	.00360	-.00100	.17180	.06490	.52740	.23130	2.09890
1.199	10.620	.88870	-.09220	-.02830	.00310	.00190	.16970	.06940	.64560	.29180	2.19700
1.199	12.880	.82490	-.11000	-.02780	.00320	.00070	.16670	.06970	.76900	.34160	2.21860
1.199	15.130	.95440	-.12470	-.02370	.00360	-.00130	.16610	.07240	.87800	.40150	2.14380
1.199	17.320	1.07720	-.13890	-.02610	.00290	.00000	.16500	.07580	.97910	.47140	2.04660
1.199	19.320	1.17320	-.13740	-.02750	.00290	-.00180	.16350	.07910	1.05307	.54180	1.92350
1.199	21.990	1.27630	-.13810	-.02750	.00210	-.00230	.16100	.08330	1.12740	.61750	1.81970
1.199	10.630	.99280	-.09250	-.02860	.00400	.00200	.15930	.06820	.64970	.29120	2.20760
GRADIENT	.06236	.06236	-.01392	-.02089	.00005	-.00021	-.00768	-.00032	.05908	.00431	.29128

RUN NO. 184/ 0 RV/L = 6.99 GRADIENT INTERVAL = -5.00/ 5.00

MMON	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
1.944	-.420	.01980	.00080	-.01300	.00360	.00090	.14400	.03360	.02090	.14380	.14990
1.944	1.630	.10500	-.01190	-.01380	.00280	.00000	.14190	.03360	.10090	.14490	.89680
1.944	3.800	.19210	-.02500	-.01430	.00270	-.00010	.13850	.03340	.16230	.11100	1.20870
1.944	5.960	.29390	-.03690	-.01410	.00190	.00000	.13960	.03240	.27770	.11850	1.63810
1.944	8.180	.38300	-.04640	-.01480	.00200	-.00020	.13640	.03150	.35970	.11950	1.69830
1.944	10.370	.47290	-.05290	-.01540	.00190	-.00040	.13240	.03220	.44130	.21950	2.04790
1.944	12.570	.56570	-.05830	-.01590	.00170	-.00050	.12990	.03320	.52380	.24990	2.09580
1.944	14.750	.65230	-.06210	-.01640	.00130	-.00070	.12650	.03360	.59890	.24930	2.07670
1.944	17.000	.75940	-.06980	-.01640	.00070	-.00080	.12550	.03470	.66930	.34200	2.01380
1.944	19.800	.85700	-.07750	-.01540	.00000	-.00060	.12320	.03590	.76870	.33830	1.92970
1.944	21.870	.94590	-.08290	-.01540	-.00080	-.00060	.12030	.03720	.83740	.45530	1.83900
1.944	10.340	.45920	-.04930	-.01540	.00200	-.00070	.12900	.03230	.42850	.23940	2.04600
GRADIENT	.04082	.04082	-.00614	-.02036	.00002	-.00009	-.00131	-.00005	.03829	.01172	.25179

TABULATED SOURCE DATA - NSFC TWT 374

NSFC 374 (0448) ORB 1398 W/ALT NOSE

REFERENCE DATA PARAMETRIC DATA

SREF = 3000.0000 IN. XREF = 636.7000 IN.
 LREF = 474.0000 IN. YREF = .0000 IN.
 BREF = 908.7000 IN. ZREF = .0000 IN.
 SCALE = .0040

BETA = .000 ELEVTR = .000
 AIRLON = .000 EOLAP = 13.750
 SPOBRK = 999.990

RUN NO. 156/ 0 RV/L = 4.10 GRADIENT INTERVAL = -5.00/ 5.00

WCH	ALPHA	ON	CLM	CY	CYN	COL	CA	CAS	CL	CD	L/D
2.990	-.910	-.01700	-.00700	-.01100	.00000	.00000	.10720	.01640	-.01600	.10750	-.14940
2.990	1.480	.03670	-.00780	-.01050	.00180	-.00020	.10340	.01680	.03400	.10630	.31960
2.990	3.330	.08620	-.00510	-.01010	.00100	-.00030	.10130	.01720	.06960	.10700	.83930
2.990	5.300	.16090	-.00320	-.00990	.00120	-.00040	.09860	.01770	.19300	.11390	1.32240
2.990	7.890	.25820	-.01130	-.01070	.00100	-.00060	.09350	.01760	.21330	.12500	1.70390
2.990	9.740	.29720	-.01410	-.01090	.00090	-.00080	.09240	.01740	.27700	.14250	1.94420
2.990	11.820	.36970	-.01760	-.01030	.00080	-.00090	.09050	.01770	.34290	.16820	2.06280
2.990	13.940	.44310	-.02000	-.01100	.00060	-.00100	.08950	.01740	.40630	.19460	2.09740
2.990	16.060	.51790	-.02320	-.01180	.00040	-.00110	.08840	.01760	.47500	.22940	2.06180
2.990	18.080	.59600	-.02610	-.01080	.00030	-.00120	.08940	.01780	.53660	.27000	1.99360
2.990	20.080	.67390	-.03640	-.01060	.00020	-.00090	.08610	.01750	.60410	.31470	1.91950
2.990	9.730	.30220	-.01480	-.01140	.00100	-.00090	.09370	.01740	.26210	.14360	1.96340
2.990	GRADIENT	.00002	.00047	.00022	-.00025	-.00007	-.00146	.00020	.02619	-.00007	.24477

RUN NO. 157/ 0 RV/L = 4.90 GRADIENT INTERVAL = -5.00/ 5.00

WCH	ALPHA	ON	CLM	CY	CYN	COL	CA	CAS	CL	CD	L/D
4.999	-.480	-.00900	-.01460	-.00630	.00190	.00030	.08060	.00370	-.02630	.08110	-.34970
4.999	1.450	.01160	-.01240	-.00780	.00160	.00000	.07670	.00360	.00960	.07890	.12450
4.999	3.430	.05820	-.00990	-.00590	.00120	-.00010	.07700	.00470	.04740	.08000	.59260
4.999	5.490	.09990	-.00640	-.00690	.00050	-.00030	.07390	.00490	.08230	.08310	1.11030
4.999	7.540	.14890	-.00650	-.00720	.00070	-.00040	.07160	.00410	.13910	.09060	1.53450
4.999	9.580	.20690	-.00850	-.00710	.00090	-.00020	.07030	.00400	.19220	.10370	1.83340
4.999	11.820	.26560	-.00920	-.00530	.00010	-.00030	.07070	.00400	.24590	.12270	2.00350
4.999	13.940	.33430	-.00920	-.00550	.00010	-.00030	.07030	.00420	.30610	.14740	2.06930
4.999	15.720	.40100	-.01210	-.00610	.00010	-.00030	.07060	.00420	.36680	.17690	2.07320
4.999	17.730	.47370	-.01610	-.00620	.00070	-.00030	.07080	.00420	.42950	.21190	1.02670
4.999	19.700	.54840	-.01630	-.00630	.00060	-.00010	.07230	.00410	.49290	.25330	1.94590
4.999	9.580	.21000	-.00630	-.00640	.00090	-.00030	.07060	.00410	.19330	.10460	1.86770
4.999	GRADIENT	.00061	.00119	.00011	-.00016	-.00010	-.00096	.00006	.01921	-.00027	.23914

NSFC 574 (0A48) ORB 1398 W/ALT NOSE

(R87047) (18 JUL 73)

REFERENCE DATA

SREF = 2000.0000 18. FT. YMRP = 936.7000 IN.
 LREF = 474.8000 IN. YMRP = .0000 IN.
 SREF = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

BETA = .000 ELEVTR = .000
 ALLRON = .000 BOFLAP = 13.750
 SPOBRK = 999.990

PARAMETRI DATA

RUN NO. 153/ 0 RV/L = 4.09 GRADIENT INTERVAL = -5.00/ 5.00

NACH	ALPHA	CN	CLM	CY	CYN	COL	CA	CAB	CL	CD	L/D
2.990	20.800	.67940	-.03703	-.01290	-.00250	.00120	.08920	.01790	.60450	.32280	1.87330
2.990	22.430	.70280	-.04240	-.01220	-.00260	-.00060	.08860	.01830	.60960	.37350	1.78330
2.990	24.700	.64770	-.03070	-.01340	-.00320	-.00060	.08790	.01830	.73340	.43410	1.66910
2.990	26.800	.94230	-.05900	-.01380	-.00310	-.00070	.08790	.01870	.80140	.50330	1.59220
2.990	28.910	1.03370	-.06830	-.01550	-.00370	-.00040	.08670	.01870	.86470	.57870	1.49910
2.990	31.010	1.13220	-.07650	-.01960	-.00400	-.00170	.08700	.01890	.92350	.65790	1.40680
2.990	33.130	1.23030	-.08320	-.02330	-.00300	-.00340	.08630	.01890	.96200	.74480	1.31980
2.990	35.250	1.33110	-.09310	-.02280	-.00040	-.00340	.08630	.01890	1.03710	.83890	1.23610
2.990	37.350	1.42830	-.10450	-.02430	.00000	-.00350	.08320	.01880	1.06360	.93450	1.15930
2.990	39.450	1.52090	-.11480	-.02490	.00010	-.00360	.08460	.01860	1.12510	1.03570	1.08830
2.990	41.470	1.62030	-.12450	-.02350	.00000	-.00350	.08370	.01860	1.15860	1.13580	1.02000
2.990	31.010	1.13610	-.07690	-.01930	-.00210	-.00190	.08650	.01890	.92900	.65960	1.40850
GRADIENT	.04341	-.00424	-.00071	.00019	-.00017	-.00024	.00003	.00073	.02702	.03922	-.04133

RUN NO. 156/ 0 RV/L = 4.90 GRADIENT INTERVAL = -5.00/ 5.00

NACH	ALPHA	CN	CLM	CY	CYN	COL	CA	CAB	CL	CD	L/D
4.999	20.260	.55480	-.02110	-.00920	-.00140	-.00020	.07540	.00370	.49610	.26370	1.86080
4.999	22.280	.63380	-.02670	-.00940	-.00230	-.00010	.07560	.00380	.51000	.31000	1.79990
4.999	24.590	.72140	-.03330	-.00960	-.00300	.00000	.07690	.00390	.62600	.36680	1.70850
4.999	26.330	.81080	-.04090	-.01140	-.00260	-.00040	.07790	.00400	.69200	.42980	1.61070
4.999	28.410	.90410	-.04850	-.01260	-.00250	-.00030	.07900	.00420	.75930	.50060	1.51610
4.999	30.450	1.00220	-.05330	-.01300	-.00170	-.00040	.08100	.00410	.82260	.57760	1.42390
4.999	32.510	1.10120	-.06360	-.01620	-.00120	-.00110	.08050	.00410	.88530	.65990	1.34140
4.999	34.670	1.20080	-.07390	-.01740	-.00030	-.00180	.08120	.00310	.94360	.75020	1.25780
4.999	36.710	1.30170	-.08190	-.01660	-.00090	-.00120	.08210	.00390	.99460	.84370	1.17890
4.999	38.920	1.39920	-.09220	-.01780	-.00140	-.00110	.08190	.00380	1.04040	.93910	1.10780
4.999	40.670	1.49640	-.10250	-.01840	-.00160	-.00070	.08250	.00370	1.08100	1.03790	1.04140
4.999	30.460	1.00720	-.05490	-.01310	-.00150	-.00060	.08170	.00400	.82730	.58220	1.42380
GRADIENT	.04645	-.00397	-.00006	.00006	-.00006	.00006	.00006	.00000	.02920	.03820	-.04179

DATE 28 SEP 73 TABULATED SOURCE DATA - MSFC TWT 374

MSFC 574 (0448) ORB 139

(087048) (17 SEP 73)

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 AIRLON = .000 BOFLAP = .000
 SPCBRK = 999.990

REFERENCE DATA

SWEP = 2000.0000 20.0 FT. XWRP = 836.7000 IN.
 LWRP = 474.0000 IN. YWRP = .0000 IN.
 ZWRP = 906.7000 IN. ZWRP = .0000 IN.
 SCALE = .0040

RUN NO. DJ 0 RWL = 7.13 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	ON	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
1.947	-.010	.04900	-.01000	.00000	.00100	-.00030	.14290	.03120	.09060	.14260	.35540
1.947	1.077	.13610	-.02960	-.00120	.00140	-.00050	.14190	.03100	.13190	.14560	.90480
1.947	3.010	.22160	-.04330	-.00290	.00140	-.00070	.14080	.03140	.21160	.15500	1.36580
1.947	6.000	.31940	-.06620	-.00360	.00120	-.00080	.14160	.03130	.30260	.17430	1.73720
1.947	9.130	.39600	-.08740	-.00490	.00160	-.00070	.13830	.03030	.37230	.19310	1.92790
1.947	10.330	.46900	-.07790	-.00600	.00150	-.00050	.13540	.03140	.45260	.25040	2.05430
1.947	12.550	.57940	-.08710	-.00690	.00150	-.00050	.13310	.03270	.53270	.25000	2.06650
1.947	14.670	.68330	-.06360	-.00960	.00160	-.00060	.13020	.03360	.60080	.29190	2.05830
1.947	16.920	.79640	-.10270	-.01040	.00170	-.00050	.12940	.03410	.66590	.34410	1.99330
1.947	19.101	.85400	-.11260	-.01160	.00200	-.00060	.12810	.03570	.78500	.40060	1.90920
1.947	21.210	.95710	-.12370	-.01260	.00200	-.00070	.12770	.03660	.84600	.46340	1.81750
1.947	30.340	.46800	-.07730	-.00620	.00160	-.00060	.13390	.03130	.45010	.21630	2.08110
GRADIENT		.04075	-.00626	-.00069	.00009	-.00009	-.00055	.00005	.03619	.00294	.23932

RUN NO. DJ 0 RWL = 4.06 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	ON	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
2.990	-.000	-.00450	-.02460	.00070	-.00010	-.00030	.10770	.01760	-.00360	.10760	-.03360
2.990	1.430	.04620	-.02460	.00090	.00060	.00000	.10630	.01790	.04550	.10750	.42300
2.990	3.580	.10900	-.02830	-.00100	.00020	-.00010	.10360	.01620	.10240	.11030	.92870
2.990	5.560	.17040	-.05230	-.00220	.00040	-.00030	.10060	.01630	.15960	.11690	1.36700
2.990	7.630	.23590	-.03660	-.00230	.00070	-.00020	.09960	.01660	.22050	.13030	1.69200
2.990	9.780	.30340	-.04290	-.00360	.00060	-.00040	.09610	.01690	.26250	.14600	1.90900
2.990	11.600	.37320	-.04790	-.00360	.00120	-.00010	.09690	.01690	.34740	.17160	2.02410
2.990	13.650	.44590	-.05340	-.00560	.00060	-.00030	.09580	.01660	.41000	.19960	2.05370
2.990	15.970	.52290	-.05970	-.00670	.00060	-.00050	.09390	.01640	.47670	.23410	2.03610
2.990	18.030	.60040	-.06720	-.00780	.00070	-.00020	.09340	.01660	.54200	.27470	1.97290
2.990	20.010	.67960	-.07420	-.00790	.00070	-.00020	.09320	.01660	.67660	.32020	1.69440
2.990	9.750	.30690	-.04280	-.00370	.00170	-.00040	.09600	.01970	.26600	.14630	1.92540
GRADIENT		.02632	-.00066	-.00043	.00007	.00005	-.00096	.00010	.02645	.00063	.24002

DATE 26 SEP 73

TABULATED SOURCE DATA - MSFC TWT 574

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MSFC 574 (0A48) CRB 1-39

(R67048) (17 SEP 73)

REFERENCE DATA

MSFC = 2890.0000 56.171.
 LMSFC = 474.6000 IN.
 MSFC = 936.7000 IN.
 SCALE = .0040

BETA = .000
 AILRON = .000
 SPOBRK = 999.990

PARAMETRIC DATA

RUN NO. Q/ D RWL = 4.90 GRADIENT INTERVAL = -5.00/ 5.00

WICH	ALPHA	CH	CLN	CT	CYN	ORL	CA	CAS	CL	CD	L/D
4.999	-1.920	-1.03800	-1.03170	.00850	.00150	-1.00050	.08410	.00390	-1.03120	.08440	-1.37020
4.999	1.410	.01150	-1.03080	.00840	.00120	-1.00020	.08800	.00400	.00840	.08230	.11500
4.999	3.440	.03560	-1.03150	.00150	.00070	.00000	.07970	.0042	.05077	.08290	.61190
4.999	5.490	.10800	-1.03880	.00130	.00130	-1.00020	.07790	.00430	.08410	.08720	1.07930
4.999	7.490	.18430	-1.03990	.00050	.00180	-1.00110	.07840	.00430	.14300	.08590	1.49080
4.999	9.540	.21400	-1.03800	-1.00020	.00050	.00100	.07490	.00440	.18070	.10900	1.82290
4.999	11.560	.27440	-1.04110	-1.00130	.00040	-1.00010	.07490	.00450	.25390	.12610	1.96180
4.999	13.600	.33790	-1.04540	-1.00180	.00040	-1.00010	.07590	.00450	.31080	.13130	2.05320
4.999	15.660	.41170	-1.04870	-1.00230	.00030	.00010	.07480	.00450	.37630	.16280	2.09930
4.999	17.710	.48420	-1.05190	-1.00270	.00060	-1.00010	.07320	.00440	.43630	.21900	2.00100
4.999	19.860	.55730	-1.05490	-1.00410	.00060	.00000	.07340	.00440	.49940	.25960	1.93120
4.999	9.950	.21960	-1.03700	-1.00220	.00070	-1.00010	.07900	.00450	.20030	.10970	1.82500
4.999	GRADIENT	.02212	.00005	-1.00215	-1.00020	.00015	-1.00111	.00376	.02068	-1.00037	.24798

REFERENCE DATA

SREF = 2880.0000 56.77. XREF = 830.7000 IN.
 LREF = 474.0000 IN. YREF = .0000 IN.
 BREF = 936.7000 IN. ZREF = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 AIRLON = .000 BOFLAP = .000
 SPDRNK = 999.999

RUN NO. 01 0 NWL = 4.57 GRADIENT INTERVAL = -5.00/ 5.00

WCH	ALPHA	CN	CLM	CY	CYN	CBL	CL
.804	-.400	.03280	.02420	-.00490	.00170	.00210	.01900
.804	1.590	.11860	.01660	-.00400	.00130	.00240	.11100
.804	3.630	.28130	.01190	-.00810	.00120	.00220	.21790
.804	5.780	.32840	.00570	-.00860	.00120	.00190	.32290
.804	7.620	.44950	-.00210	-.01240	.00240	.0025	.43410
.804	9.980	.53130	-.00990	-.01260	.00160	.00220	.51930
.804	12.040	.64200	-.01400	-.01090	.00090	-.00010	.61760
.804	14.140	.74690	-.01460	-.02020	.00170	.01050	.71520
.804	16.250	.87000	-.01540	-.01690	.00030	.00710	.82250
.804	18.330	.98990	-.01920	-.01620	.00060	-.00050	.92160
.804	20.320	1.07310	-.01040	-.02080	.00120	-.00130	.99000
.804	9.920	.52910	-.00640	-.01400	.00130	.00500	.51300
.804	GRADIENT	.02105	-.00294	-.00126	-.00012	.00002	.05001

RUN NO. 02 0 NWL = 5.76 GRADIENT INTERVAL = -5.00/ 5.00

WCH	ALPHA	CN	CLM	CY	CYN	CBL	CL
.900	-.400	.03280	.02420	-.00490	.00170	-.00080	.03330
.900	1.660	.14960	.01450	-.00600	.00150	-.00100	.14730
.900	3.630	.28370	.02000	-.01030	.00290	.00020	.28000
.900	5.960	.35990	-.00590	-.01080	.00230	-.00110	.34970
.900	8.090	.44460	-.01270	-.01200	.00290	.00070	.42630
.900	10.270	.54410	-.02730	-.01360	.00270	.00300	.53960
.900	12.470	.70440	-.05010	-.02050	.00310	.00560	.66640
.900	14.650	.83120	-.06230	-.01570	.00160	.00400	.78050
.900	16.870	.93550	-.07370	-.01710	.00140	.00140	.86350
.900	18.960	1.03630	-.06660	-.01990	.00130	-.00210	.94760
.900	20.970	1.07970	-.04410	-.01570	-.00120	.00000	.96650
.900	10.290	.57260	-.03030	-.01620	.00260	.00270	.54600
.900	GRADIENT	.03505	-.00323	-.00133	.00019	.00010	.05359

DATE 29 SEP 73

TABULATED SOURCE DATA - NSPC TMT 574

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NSPC 574 (0448) OBS 139

(207048) (08 SEP 73)

REFERENCE DATA

SREF = 2890.0000 88.71. 1000P = 838.7000 IN.
 LREF = 474.8000 IN. 1000P = .0000 IN.
 SREF = 236.7000 IN. 1000P = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 ALLCON = .000 BOFLAP = .000
 SPOROK = 999.990

RUN NO. 0/ 0 RML = 6.18 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	ON	CLN	CY	CYN	CEL	CL
1.200	-3.290	.10980	-.00940	.00060	.00120	.00000	.10980
1.200	1.840	.23690	-.02870	-.00130	.00130	-.00100	.23110
1.200	4.030	.34190	-.04640	-.00230	.00130	-.00100	.34890
1.200	6.230	.47970	-.06350	-.00330	.00170	.00000	.45370
1.200	8.430	.59670	-.07440	-.00430	.00210	.00110	.55460
1.200	10.680	.72810	-.08800	-.01200	.00260	.00210	.68300
1.200	12.900	.85420	-.11750	-.01260	.00230	.00140	.79370
1.200	15.130	.97410	-.13070	-.01490	.00230	.00260	.89460
1.200	17.320	1.07560	-.13950	-.01700	.00310	.00310	.97450
1.200	19.490	1.17160	-.13860	-.02460	.00300	.00220	1.04600
	GRADIENT	.05663	-.03926	-.00067	.00002	-.00023	.05532

DATE 20 SEP 75

TABULATED SOURCE DATA - NSPC TMT 574

NSPC 574 (C-148) CRB 139

PAGE 06
(R07049) (17 SEP 75)

REFERENCE DATA

SHIP = 2000.0000 20.0 FT. 100P = 834.7000 IN.
 LOST = 474.0000 IN. 100P = .0000 IN.
 SHIP = 936.0000 IN. 200P = .0000 IN.
 SCALE = .0000

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 AIRLON = .000 BOFLAP = .000
 SPOROK = 999.990

RUN NO. Q/ D RWL = 4.08 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	CH	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
2.000	.00000	-.07000	-.01070	-.00000	-.00000	.00000	.01970	.61090	.39010	1.85040
2.100	.00000	-.06340	-.01060	-.00000	-.00000	.00340	.01880	.67160	.38070	1.79360
2.200	.00000	-.06270	-.01110	-.00000	-.00000	.00360	.01850	.73670	.44300	1.66740
2.300	.00000	-.06200	-.01180	-.00000	-.00000	.00370	.01800	.79730	.50740	1.57140
2.400	.00000	-.06130	-.01260	-.00000	-.00000	.00380	.01800	.86290	.56340	1.47870
2.500	.00000	-.06060	-.01340	-.00000	-.00000	.00400	.01900	.92230	.60330	1.39030
2.600	.00000	-.05990	-.01420	-.00000	-.00000	.00420	.01910	.97770	.74970	1.30530
2.700	.00000	-.05920	-.01500	-.00000	-.00000	.00430	.01930	1.02340	.83400	1.22710
2.800	.00000	-.05850	-.01580	-.00000	-.00000	.00450	.01950	1.07390	.93470	1.14910
2.900	.00000	-.05780	-.01660	-.00000	-.00000	.00470	.01920	1.11930	1.03450	1.07830
3.000	.00000	-.05710	-.01740	-.00000	-.00000	.00490	.01930	1.14990	1.13290	1.01400
3.100	.00000	-.05640	-.01820	-.00000	-.00000	.00510	.01900	.82720	.86640	1.39130
3.200	.00000	-.05570	-.01900	-.00000	-.00000	.00530	.01900	.02632	.03690	-.04072
3.300	.00000	-.05500	-.01980	-.00000	-.00000	-.00000	.00000			

RUN NO. Q/ D RWL = 4.08 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	CH	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
2.000	.00000	-.06270	-.01070	-.00000	-.00000	.00000	.00400	.51630	.27370	1.86640
2.100	.00000	-.06200	-.01060	-.00000	-.00000	.00340	.00420	.57710	.32080	1.79830
2.200	.00000	-.06130	-.01110	-.00000	-.00000	.00360	.00410	.64560	.37890	1.70540
2.300	.00000	-.06060	-.01180	-.00000	-.00000	.00370	.00400	.70920	.44040	1.61030
2.400	.00000	-.05990	-.01260	-.00000	-.00000	.00380	.00420	.77310	.51010	1.51930
2.500	.00000	-.05920	-.01340	-.00000	-.00000	.00400	.00420	.83970	.56900	1.42440
2.600	.00000	-.05850	-.01420	-.00000	-.00000	.00420	.00440	.90030	.67360	1.33660
2.700	.00000	-.05780	-.01500	-.00000	-.00000	.00430	.00420	.95530	.78080	1.25560
2.800	.00000	-.05710	-.01580	-.00000	-.00000	.00450	.00430	1.00390	.83250	1.17750
2.900	.00000	-.05640	-.01660	-.00000	-.00000	.00470	.00430	1.05040	.95120	1.10120
3.000	.00000	-.05570	-.01740	-.00000	-.00000	.00490	.00420	1.08690	1.05150	1.03560
3.100	.00000	-.05500	-.01820	-.00000	-.00000	.00510	.00440	.84510	.59300	1.42510
3.200	.00000	-.05430	-.01900	-.00000	-.00000	.00530	.00440	.02661	.03631	-.04217
3.300	.00000	-.05360	-.01980	-.00000	-.00000	-.00000	.00000			

TABULATED SOURCE DATA - NSFC TWT 574

DATE 28 SEP 73

(287049) (08 SEP 73)

NSFC 574(0448) CRB 139

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 AIRCON = .000 BOFLAP = .000
 SPDRK = 999.990

REFERENCE DATA

DEL = 2820.0000 88-FT. XPRP = 638.7000 IN.
 LADP = 474.8000 IN. YPRP = .0000 IN.
 BRDP = 936.7000 IN. ZPRP = .0000 IN.
 SCALE = .0040

RUN NO. 0/0 RVL = 4.79 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CN	CLM	CY	CYN	CBL	CL
.600	20.930	1.06450	-.01100	-.02870	.00150	-.00060	.99620
.600	22.880	1.12390	.00670	-.02180	.00130	-.00280	1.01540
.600	24.840	1.09910	.03990	-.02350	.00220	-.00410	.97210
.600	26.830	1.05970	.04800	-.02560	.00100	-.00320	.91430
.600	28.860	1.10190	.05480	-.02000	.00160	-.00270	.93060
.600	30.960	1.17590	.04990	-.01860	.00170	-.00260	.97280
.600	33.040	1.26600	.05940	-.01400	.00240	-.00320	1.02350
.600	35.100	1.34220	.02860	-.01650	.00110	-.00660	1.06240
.600	37.180	1.41120	.02670	-.00820	.00030	-.00980	1.04780
.600	39.230	1.48320	.04330	.00070	-.00300	-.01020	1.11250
.600	41.180	1.51700	.05590	-.00730	.00190	-.00770	1.10790
.600	30.970	1.16210	.05130	-.01820	-.00170	-.00240	.97820
.600	GRADIENT	.02355	.00175	.00115	.0019	-.00741	.00758

DATE 28 SEP 75

TABULATED SOURCE DATA - NSFC TWT 574

PAGE 90

(187051) (17 SEP 75)

NSFC 574 (0448) OBS 139

REFERENCE DATA

REF = 8000.0000 80.0 FT. XREF = 638.7000 IN.
 LREF = 474.0000 IN. YREF = .0000 IN.
 BREF = 998.7000 IN. ZREF = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

ALPHA = .000 ELENTR = .000
 AIRCON = .000 BOFLAP = .000
 SPORUK = 999.990

RUN NO. 294/ 0 RW/L = 4.66 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CH	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.902	-10.400	.08180	.00460	.00000	-.00250	.00710	.05070	.03370	.05240	.05010	1.04850
.902	-6.470	.04080	.00890	.16580	-.01990	.00710	.05390	.03420	.04960	.05300	.94070
.902	-6.440	.04030	.01340	.12420	-.01420	.00580	.05340	.03290	.04090	.05300	.74320
.902	-4.410	.08880	.01770	.08410	-.00930	.00440	.05750	.03330	.03350	.05690	.58850
.902	-2.380	.05250	.08050	.04310	-.00490	.02260	.05900	.03370	.03500	.05660	.56250
.902	-1.340	.05110	.08210	.00540	-.00020	.00210	.05950	.03290	.03180	.05690	.55970
.902	1.000	.02940	.08350	-.03900	.00420	.00370	.05980	.03310	.03030	.05630	.52060
.902	3.750	.03050	.08090	-.07430	.00630	.00000	.05680	.03450	.03090	.05650	.54690
.902	5.750	.08930	.01650	-.11320	.01360	-.00160	.05550	.03620	.03000	.05510	.84240
.902	7.800	.05430	.01530	-.15660	.01860	-.00330	.05470	.03650	.03490	.05430	.72910
.902	9.000	.03750	.01230	-.19180	.02240	-.00350	.05270	.03950	.03810	.05230	.39560
.902	-1.340	.03660	.03650	.00930	-.00030	.00270	.09570	.10670	.03770	.09530	-.00615
.902		-.00039	.00041	-.01942	.00216	-.00054	-.00007	.00009	-.00039	-.00005	

RUN NO. 295/ 0 RW/L = 6.01 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CH	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.901	-10.550	.04820	.00040	.24080	-.03510	.00240	.07750	.04080	.05010	.07700	.85090
.901	-9.990	.04270	.00670	.20190	-.03040	.00250	.07480	.03840	.04350	.07430	.56560
.901	-8.320	.04240	.01180	.15820	-.02600	.00240	.07260	.03450	.04320	.07210	.59890
.901	-4.470	.04250	.01320	.11150	-.01790	.00190	.07140	.03260	.04320	.07100	.60930
.901	-2.430	.03600	.02010	.06120	-.00830	.00010	.07170	.03120	.03680	.07130	.54490
.901	-1.350	.03360	.02650	.01180	-.00170	-.00080	.07290	.03090	.03470	.07260	.47860
.901	1.700	.02930	.02800	-.03470	.00460	-.00130	.07150	.03210	.03010	.07120	.42280
.901	3.750	.02570	.02650	-.06360	.01220	-.00260	.07020	.03290	.02640	.06990	.37870
.901	5.820	.03420	.01760	-.13710	.02200	-.00370	.07410	.03550	.03500	.07370	.47470
.901	7.930	.02660	.01750	-.18210	.02820	-.00450	.07450	.03930	.02750	.07420	.37020
.901	9.790	.02250	.01620	-.22130	.03330	-.00460	.07460	.04310	.02330	.07440	.31420
.901	-1.350	.04770	.01840	.01200	-.00220	-.00120	.07510	.02590	.04850	.07460	.65060
.901		-.00205	.00148	-.02358	.00360	-.00047	-.00013	.00007	-.00205	-.00011	-.02631

GRADIENT

NSFC 574 (0448) ORB 139

(R07051) (17 SEP 73)

REFERENCE DATA

REF = 2000.0000 SR.FT. XREF = 838.7000 IN.
 YREF = 474.0000 IN. YREF = .0000 IN.
 ZREF = 934.7000 IN. ZREF = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

ALPHA = .000 ELEVTR = .000
 AIRCON = .000 BDCLAP = .000
 SPDRK = 999.990

RUN NO. 296/ 0 RVL = 6.42 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ON	CLM	CT	CYN	QBL	CA	CAB	CL	CD	L/D
1.196	-10.610	.08530	-.00820	.21270	-.02500	.01570	.16290	.06320	.06890	.16210	.53800
1.196	-6.690	.08770	-.00290	.17350	-.02150	.01380	.16350	.06220	.08330	.16410	.54260
1.196	-6.560	.08900	-.00040	.13250	-.01650	.01090	.16850	.06020	.09140	.16710	.54590
1.196	-4.490	.09080	.00150	.09020	-.01080	.00750	.17010	.05770	.09230	.16930	.54950
1.196	-2.150	.09250	.00320	.04830	-.00490	.00380	.17110	.05540	.09410	.17020	.55270
1.196	-.360	.09150	.00460	.00640	.00020	.00070	.17080	.05470	.09510	.16990	.54770
1.196	1.720	.09070	.00340	-.03390	.00450	-.00210	.17300	.05760	.09250	.17210	.53620
1.196	3.790	.08890	.00370	-.07670	.01050	-.00590	.17320	.05930	.09040	.17240	.52440
1.196	5.850	.08310	.00290	-.12060	.01680	-.00960	.17170	.05950	.08470	.17090	.49590
1.196	7.940	.07790	.00180	-.16360	.02250	-.01310	.16940	.05930	.07950	.16870	.47140
1.196	9.850	.06940	.00160	-.20250	.02700	-.01530	.16750	.05900	.07110	.16680	.42610
1.196	-1.350	.09130	.00500	.00440	.00040	.00050	.17040	.05410	.09280	.16960	.54740
1.196	GRADIENT	-.00026	.00024	-.02007	.00253	-.00156	.00039	.00026	-.00027	.00039	-.00284

RUN NO. 175/ 0 RVL = 7.06 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ON	CLM	CT	CYN	QBL	CA	CAB	CL	CD	L/D
1.955	-10.370	.04660	-.02630	.19820	-.01350	.00870	.13730	.03620	.04820	.13680	.35230
1.955	-6.350	.04760	-.02410	.15560	-.01010	.00680	.14070	.03420	.04940	.14020	.35260
1.955	-6.280	.05030	-.02110	.11330	-.00700	.00470	.14390	.03300	.05190	.14350	.36210
1.955	-4.190	.04820	-.01970	.07280	-.00420	.00260	.14440	.03260	.04980	.14380	.34670
1.955	-2.100	.04820	-.01740	.03490	-.00140	.00110	.14490	.03220	.05080	.14430	.35180
1.955	.000	.04760	-.01590	-.00330	.00190	-.00070	.14430	.03220	.04920	.14370	.34260
1.955	2.110	.04460	-.01650	-.04200	.00330	-.00260	.14040	.03270	.04620	.13990	.33030
1.955	4.190	.04370	-.01680	-.07910	.00570	-.00410	.14210	.03320	.04460	.14160	.31480
1.955	6.290	.04090	-.01870	-.12320	.00870	-.00620	.14310	.03380	.04250	.14260	.29820
1.955	8.400	.03760	-.02240	-.16800	.01170	-.00830	.14300	.03600	.03920	.14250	.27520
1.955	10.380	.03220	-.02670	-.21310	.01480	-.00990	.14250	.03710	.03380	.14210	.23830
1.955	.010	.04630	-.01630	-.00680	.00790	-.00100	.14180	.03220	.04790	.14130	.33910
1.955	GRADIENT	-.00072	.00032	-.01822	.00117	-.00082	-.00044	.00006	-.00072	-.00042	-.00406

DATE 28 SEP 73

TABULATED SOURCE DATA - NSFC TWT 374

(R07051) (17 SEP 73)

NSFC 374 (0448) CRB 139

PARAMETRIC DATA

ALPHA = .000 ELEVTR = .000
 ALLRON = .000 BOFLAP = .000
 SPOBRK = 999.999

REFERENCE DATA

SNIP = 2000.0000 84. FT. 1200P = 838.7000 IN.
 LREF = 474.0000 IN. YREF = .0000 IN.
 SNIP = 936.7000 IN. ZREF = .0000 IN.
 SCALE = .0040

RUN NO. 248/ 0 RWL = 4.16 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	-10.900	-.00290	-.03300	.18300	-.00080	.00080	.10990	.01920	-.00150	.10990	-.01430
2.990	-6.500	-.00310	-.03320	.15060	-.00790	.00610	.10640	.01890	.00120	.10640	.01110
2.990	-6.510	-.00140	-.03090	.11480	-.00800	.00480	.10760	.01620	.00000	.10760	-.00060
2.990	-4.440	-.00280	-.02840	.07880	-.00320	.00330	.10690	.01780	-.00120	.10690	-.01180
2.990	-2.410	-.00700	-.04430	.04430	-.00070	.00200	.10760	.01800	.00130	.10760	.01210
2.990	-.390	-.00980	-.08500	.01000	-.00070	.00010	.10790	.01780	-.00790	.10790	-.07530
2.990	1.710	-.00980	-.02490	-.02810	.00230	-.00160	.10790	.01780	-.00750	.10790	-.06960
2.990	3.710	-.01100	-.02630	-.06260	.00370	-.00320	.10760	.01760	-.00960	.10760	-.08970
2.990	5.810	-.01010	-.02870	-.13570	.00590	-.00470	.10810	.01820	-.01140	.10810	-.08090
2.990	7.860	-.01280	-.02940	-.17190	.00820	-.00590	.10900	.01820	-.01300	.10900	-.10570
2.990	9.800	-.01440	-.03090	-.00860	-.00940	-.00700	.10900	.01800	-.00770	.10760	-.10710
2.990	-.340	-.00910	-.02300	.00860	-.00090	.00000	.10750	.01800	-.00770	.10760	-.07170
2.990	GRADIENT	-.00126	.00029	-.01734	.00112	-.00081	.00009	-.00002	-.00126	.00011	-.01166

RUN NO. 248/ 0 RWL = 5.01 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.999	-10.410	-.02310	-.03360	.15730	-.00370	.00770	.09100	.00470	-.02190	.09130	-.24030
4.999	-6.470	-.02130	-.03280	.12500	-.00390	.00590	.08930	.00480	-.02010	.08950	-.22530
4.999	-6.450	-.01800	-.03220	.09390	-.00240	.00460	.08750	.00470	-.01690	.08770	-.19330
4.999	-4.480	-.02210	-.03380	.06370	-.00190	.00280	.08570	.00470	-.02100	.08600	-.24490
4.999	-2.380	-.01960	-.03340	.03340	-.00030	.00190	.08440	.00460	-.01850	.08470	-.21850
4.999	-.340	-.01860	-.03370	.00580	-.00010	-.00030	.08370	.00460	-.01860	.08400	-.22380
4.999	1.690	-.01690	-.03250	-.02451	.00120	-.00030	.08300	.00460	-.01780	.08330	-.21420
4.999	3.670	-.02250	-.03220	-.03400	.00120	-.00030	.08460	.00470	-.02130	.08490	-.25000
4.999	5.760	-.02700	-.03290	-.06290	.00330	-.00430	.08670	.00480	-.02590	.08630	-.25000
4.999	7.780	-.03320	-.03190	-.11360	.00450	-.00570	.08820	.00470	-.03200	.08870	-.36160
4.999	9.700	-.03000	-.03230	-.14410	.00570	-.00680	.08980	.00490	-.02860	.09010	-.31960
4.999	-.340	-.01970	-.03560	.00640	.00180	-.00010	.08220	.00480	-.01870	.08240	-.22670
4.999	GRADIENT	.00002	.00001	-.01458	.00053	-.00073	-.00016	-.00000	.00001	-.00016	-.00034

DATE 28 SEP 73

(R07052) (17 SEP 73)

TABULATED SOURCE DATA - WSFC TWT 574
WSFC 574 (0445) CRB 139

REFERENCE DATA

SREF = 2690.0000 50.00 FT. XMRP = 036.7000 IN.
LREF = 474.0000 IN. YMRP = .0000 IN.
BREF = 936.7000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

ALPHA = 10.000 ELEVTR = .000
AIRCON = .000 BOFLAP = .000
SPDRK = 999.990

RUN NO. 299/ 0 RWL = 4.72 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.996	-10.410	.57930	-.02870	.19340	-.02080	.01730	.03740	.03800	.56420	.13690	4.12090
.996	-8.490	.57150	-.02870	.16250	-.01830	.01400	.03780	.03770	.55640	.13580	4.09530
.996	-6.450	.56220	-.02270	.12010	-.01330	.01140	.04240	.03620	.54630	.13670	3.93760
.996	-4.420	.55450	-.02000	.06190	-.00810	.00910	.04590	.03580	.53830	.14060	3.82160
.996	-2.400	.54810	-.01560	.04080	-.00310	.00340	.04670	.03520	.53190	.14050	3.78450
.996	-.350	.53980	-.01130	.02090	.00100	.00300	.04600	.03410	.52380	.13640	3.76430
.996	1.670	.53720	-.01090	-.03600	.00500	-.00220	.04510	.03400	.52140	.13700	3.80390
.996	3.700	.54220	-.01280	-.07360	.00890	-.00360	.04390	.03430	.52630	.13670	3.85050
.996	5.740	.54860	-.02030	-.11470	.01420	-.00610	.04260	.03660	.53300	.13750	3.91490
.996	7.790	.55390	-.02030	-.15690	.01950	-.01030	.04260	.03660	.53830	.13750	3.89330
.996	9.680	.55300	-.02190	-.19240	.02340	-.01270	.04330	.04210	.53720	.13800	3.75910
.996	-.350	.53770	-.02080	.00200	.00130	.00290	.04690	.03510	.52160	.13870	3.75910
GRADIENT		-.00175	.00094	-.01909	.00207	-.00153	-.00026	-.00021	-.00166	-.00056	.00390

RUN NO. 298/ 0 RWL = 5.70 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.900	-10.810	.60320	-.04740	.21390	-.01430	.01570	.08050	.04170	.57900	.18720	3.09800
.900	-8.640	.60340	-.04410	.17920	-.01450	.01460	.08140	.04020	.57900	.18610	3.07720
.900	-6.570	.59440	-.04080	.13630	-.01170	.01260	.08490	.03880	.56960	.19000	2.99740
.900	-4.500	.59160	-.03680	.09440	-.00960	.01030	.08670	.03800	.56660	.19060	2.97300
.900	-2.450	.58190	-.03260	.04750	-.00330	.00710	.08670	.03710	.55700	.18940	2.93960
.900	-.370	.57470	-.02930	.00400	.00150	.00410	.08660	.03640	.54990	.18790	2.92370
.900	1.690	.57870	-.02990	-.03970	.00450	.00270	.08300	.03760	.55420	.18710	2.96110
.900	3.760	.58020	-.03400	-.08480	.00910	-.00390	.08360	.03640	.55340	.18800	2.95290
.900	5.820	.58250	-.03500	-.12960	.01400	-.00390	.08660	.03640	.55760	.18940	2.94370
.900	7.920	.58780	-.03870	-.17730	.01840	-.00590	.08660	.03990	.56320	.18820	2.99140
.900	9.840	.58630	-.04270	-.21350	.01940	-.00820	.08370	.04430	.56190	.18710	3.00200
.900	-.350	.57490	-.02850	.00300	.00140	.00380	.08650	.03770	.55020	.18780	2.92840
GRADIENT		-.00126	.00040	-.02157	.00209	-.00130	-.00012	-.00013	-.00122	-.00036	-.00099

CF

DATE 28 SEP 73

TABULATED SOURCE DATA - MSFC TWT 574

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MSFC 574 (0448) ORB 139

(R07052) (17 SEP 73)

REFERENCE DATA

SREF = 2000.0000 50. FT. XMRP = 638.7000 IN.
 LREF = 474.8000 IN. YMRP = .0000 IN.
 BREF = 956.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

ALPHA = 10.000 ELEVTR = .000
 ALLRON = .000 DOFLAP = .000
 SPOBRK = 999.999

PARAMETRIC DATA

RUN NO. 297/ 0 RV/L = 6.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CN	CLM	CY	CYN	CBL	CA	CAS	CL	CD	L/D
1.201	-10.680	.70420	-.09230	.17670	-.01170	.01820	.17000	.06840	.68080	.29720	2.22260
1.201	-8.630	.70260	-.09150	.14690	-.01100	.01420	.17210	.06680	.65870	.29490	2.20320
1.201	-6.580	.70340	-.09230	.11210	-.00910	.00930	.17420	.06430	.64100	.30170	2.19090
1.201	-4.510	.70410	-.09210	.07460	-.00540	.00610	.17430	.06280	.63970	.30130	2.16760
1.201	-2.480	.70630	-.09160	.03920	-.00230	.00200	.17420	.06220	.63360	.30230	2.15590
1.201	-.370	.71790	-.09700	-.00360	.00190	.00190	.17510	.06170	.63350	.30310	2.22200
1.201	1.720	.71330	-.09290	-.04570	.00750	.00080	.17530	.06410	.64850	.30440	2.19800
1.201	3.770	.71030	-.09280	-.06130	.01000	-.00320	.17730	.06760	.68540	.30560	2.17610
1.201	5.840	.70340	-.09070	-.11660	.01320	-.00690	.17910	.06950	.65810	.30610	2.14970
1.201	7.930	.68480	-.08360	-.15760	.01750	-.01710	.18700	.07150	.64960	.30530	2.12750
1.201	9.940	.66420	-.08700	-.18680	.01750	-.01710	.17800	.06930	.64970	.30120	2.15650
1.201	-3.360	.71780	-.09640	-.00450	.00200	.00270	.17250	.06090	.67340	.30230	2.22370
1.201	GRADIENT	.00086	-.00013	-.01913	.00197	-.00095	.00034	.00055	.00076	.00052	-.00110

RUN NO. 176/ 0 RV/L = 7.06 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CN	CLM	CY	CYN	CBL	CA	CAS	CL	CD	L/D
1.960	-10.360	.49330	-.08070	.16030	.00180	.01280	.13220	.03430	.46130	.21880	2.10920
1.960	-8.380	.48420	-.07730	.12220	.00260	.00960	.13470	.03480	.45220	.21940	2.08090
1.960	-6.290	.48620	-.07670	.08970	.00130	.00710	.13320	.03410	.45590	.22080	2.06490
1.960	-4.200	.48620	-.07700	.05580	.00160	.00430	.13600	.03220	.45380	.22120	2.05130
1.960	-2.110	.48390	-.07660	.02320	.00180	.00140	.13490	.03100	.45180	.21970	2.05840
1.960	.000	.47870	-.07710	-.01010	.00180	-.00110	.13300	.03110	.44710	.21670	2.06350
1.960	2.100	.47120	-.07600	-.04290	.00180	-.00350	.13570	.03300	.43960	.21590	2.03360
1.960	4.130	.47900	-.07530	-.07430	.00200	-.00620	.13660	.03390	.44670	.22040	2.02690
1.960	6.290	.48330	-.07590	-.10990	.00130	-.00890	.13840	.03670	.45050	.22300	2.01970
1.960	8.390	.48370	-.07590	-.14390	.00130	-.01130	.13930	.03860	.45260	.22460	2.01470
1.960	10.370	.48490	-.07930	-.18310	.00120	-.01420	.13610	.03870	.45250	.22100	2.04710
1.960	.000	.46180	-.07600	-.01270	.00160	-.00140	.12910	.03120	.43110	.20940	2.05790
1.960	GRADIENT	-.00130	.00017	-.01561	.00074	-.00122	-.00063	.00026	-.00127	-.00026	-.00331

DATE 28 SEP 73

TABULATED SOURCE DATA - NSFC TWT 574

PAGE 93

NSFC 574 (0448) ORB 139

(R87052) (17 SEP 73)

REFERENCE DATA

SRF = 2890.0000 56. FT. XPRP = 836.7000 IN.
 LREF = 474.6000 IN. YPRP = .0000 IN.
 BRP = 936.7000 IN. ZPRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

ALPHA = 10.000 ELEVTR = .000
 AIRCON = .000 BOFLAP = .000
 SPOBRK = 999.990

RUN NO. 254/ 0 RVL = 4.11 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ON	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
2.990	-10.450	.31180	-.05420	.15500	-.00130	.01370	.09860	.01910	.29050	.14990	1.93980
2.990	-8.510	.31120	-.05190	.12600	-.00200	.01180	.09840	.01860	.29010	.14950	1.93940
2.990	-6.490	.30750	-.04960	.09350	-.00130	.00900	.09860	.01920	.28620	.14910	1.91970
2.990	-4.450	.30480	-.04640	.06080	.00050	.00590	.09920	.01930	.28360	.14930	1.89960
2.990	-2.410	.30360	-.04480	.03020	.00100	.00300	.09910	.01940	.28270	.14900	1.89790
2.990	-.340	.30220	-.04480	.00110	.00050	.00020	.09800	.01930	.28130	.14780	1.90480
2.990	1.690	.30100	-.04350	-.02630	.00010	-.00200	.09890	.01920	.28000	.14790	1.89310
2.990	3.740	.30060	-.04520	-.05610	.00050	-.00500	.09970	.01950	.27970	.14900	1.87630
2.990	5.760	.30220	-.04720	-.08870	.00230	-.00800	.09910	.01950	.28110	.14870	1.89320
2.990	7.810	.30280	-.04940	-.12170	.00270	-.01110	.09890	.01930	.28180	.14820	1.90190
2.990	9.750	.30410	-.05210	-.15160	.00220	-.01310	.09860	.01940	.28310	.14680	1.90240
2.990	-3.50	.30100	-.04400	.00150	.00070	.00010	.09800	.01930	.28010	.14740	1.90010
2.990	GRADIENT	-.00053	.00018	-.01417	-.00004	-.00131	.00002	.00001	-.00051	-.00006	-.00251

RUN NO. 255/ 0 RVL = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ON	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
4.959	-10.360	.22090	-.04210	.12760	.00130	.01240	.07970	.00470	.20460	.11330	1.77440
4.959	-8.420	.22240	-.04070	.10250	.00100	.01070	.07840	.00490	.20630	.11420	1.90630
4.959	-6.480	.22340	-.04280	.07690	.00020	.00850	.07690	.00490	.20750	.11290	1.83720
4.959	-4.400	.22150	-.04280	.04990	.00000	.00620	.07580	.00500	.20970	.11220	1.84630
4.959	-2.360	.22250	-.04050	.02650	.00110	.00330	.07530	.00500	.20750	.11130	1.84230
4.959	-.340	.22050	-.04070	.00100	.00050	.00030	.07410	.00490	.20510	.10960	1.87070
4.959	1.670	.22250	-.04070	-.02290	.00000	-.00290	.07400	.00510	.20710	.10990	1.84350
4.959	3.710	.22050	-.04090	-.04730	.00030	-.00470	.07490	.00500	.20500	.11040	1.85580
4.959	5.750	.21480	-.04100	-.07480	.00020	-.00710	.07580	.00510	.19920	.11030	1.80480
4.959	7.730	.21640	-.04270	-.09840	-.00020	-.00920	.07650	.00520	.20060	.11130	1.80290
4.959	9.850	.21640	-.04010	-.12330	-.00030	-.01110	.07810	.00530	.20040	.11290	1.77360
4.959	-3.40	.22020	-.04230	.00170	.00060	.00040	.07410	.00520	.20490	.10960	1.84610
4.959	GRADIENT	-.00051	.00018	-.01201	-.00002	-.00136	-.00015	.00000	-.00047	-.00023	-.00023

DATE 28 SEP 75 TABULATED SOURCE DATA - MSFC TWT 574

MSFC 574 (0448) ORS 139

(087053) (17 SEP 75)

PARAMETRIC DATA

ALPHA = 20.000 ELEVTR = .000
 ALLCON = .000 BOPLAP = .000
 SPOBCK = 999.999

REFERENCE DATA

SREF = 2090.0000 84.17. 300P = 636.7000 IN.
 LREF = 474.6000 IN. 140P = .0000 IN.
 SREF = 936.7000 IN. 240P = .0000 IN.
 SCALE = .0040

RUN NO. 302/ 0 RV/L = 6.45 GRADIENT INTERVAL = -5.00/ 5.00

MAON	BETA	ON	CLM	CT	CYN	CEL	CA	CAB	CL	CD	L/D
1.196	-10.800	1.24920	-.14140	.13610	.03040	.00000	.19050	.06670	1.10190	.60610	1.81190
1.196	-6.790	1.25910	-.14460	.10300	.02880	.01390	.15540	.06690	1.10670	.61680	1.79790
1.196	-6.670	1.26830	-.14180	.06730	.02060	.01420	.16300	.07270	1.10660	.62490	1.77430
1.196	-4.360	1.28090	-.13870	.03220	.01740	.01060	.16690	.07400	1.10590	.62810	1.76070
1.196	-2.460	1.28280	-.13630	.00730	.01010	.00530	.16640	.07400	1.10660	.63120	1.75290
1.196	-.360	1.28710	-.14230	-.01940	.00430	.00030	.17130	.07320	1.10590	.63480	1.74840
1.196	1.790	1.28640	-.14140	-.04990	.00040	-.00320	.17290	.07700	1.10660	.63560	1.74370
1.196	3.630	1.28190	-.13960	-.06110	-.00360	-.00650	.17330	.07970	1.10440	.63460	1.74010
1.196	5.940	1.25440	-.13790	-.10770	-.01120	-.01160	.16910	.07610	1.09920	.62760	1.73140
1.196	8.070	1.25410	-.13690	-.14390	-.01490	-.01420	.16420	.07420	1.10760	.62290	1.76720
1.196	10.030	1.24190	-.13260	-.18260	-.01660	-.02010	.16110	.07270	1.09060	.61510	1.77320
1.196	-.340	1.26220	-.14260	-.01690	.00360	.00030	.17030	.07370	1.10560	.63190	1.75000
1.196		.00029	-.00019	-.01353	-.07246	-.00203	.00060	.00069	-.00004	.00064	-.00240

GRADIENT

RUN NO. 172/ 0 RV/L = 7.06 GRADIENT INTERVAL = -5.00/ 5.00

MAON	BETA	ON	CLM	CT	CYN	CEL	CA	CAB	CL	CD	L/D
1.946	-10.480	.95340	-.12390	.13900	.02150	.01590	.11700	.03630	.84270	.46090	1.82830
1.946	-6.440	.94470	-.12340	.08640	.02120	.01160	.11760	.03700	.83460	.45800	1.82230
1.946	-6.330	.97110	-.12220	.05660	.02050	.00660	.12470	.03690	.85590	.47530	1.80000
1.946	-4.230	.96360	-.12110	.02710	.01590	.00260	.12640	.03620	.84660	.47410	1.78970
1.946	-2.130	.96620	-.12150	.00310	.00950	.00010	.12610	.03670	.85700	.47670	1.76300
1.946	.000	.96690	-.12270	-.01960	.00160	-.00160	.12650	.03620	.85050	.47730	1.76160
1.946	2.110	.95450	-.12050	-.04170	-.00370	-.00360	.12530	.03620	.84040	.46940	1.79030
1.946	4.170	.95100	-.11930	-.06360	-.01240	-.00720	.12300	.03580	.83610	.46590	1.79690
1.946	6.360	.95680	-.12230	-.08630	-.01630	-.01140	.12220	.03630	.84530	.46620	1.80340
1.946	8.460	.96170	-.12440	-.11940	-.01760	-.01530	.12060	.03600	.84610	.46810	1.81290
1.946	10.480	.96060	-.12360	-.16020	-.01870	-.01690	.12090	.03580	.84760	.46790	1.81160
1.946	.000	.95070	-.12150	-.02030	.00130	-.00160	.12550	.03650	.83700	.46790	1.78660
1.946			.00022	-.01075	-.01341	-.00113	-.07045	-.00276	-.00145	-.00112	.00122

GRADIENT

REFERENCE DATA
 SREF = 2090.0000 24.17. XREF = 838.7000 IN.
 LREF = 474.8000 IN. YREF = .0000 IN.
 SREF = 938.7000 IN. ZREF = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA
 ALPHA = 20.000 ELEVTR = .000
 AIRCON = .000 BOFLAP = .000
 SPORON = 999.990

RUN NO. 243/ 0 RML = 4.11 GRADIENT INTERVAL = -5.00/ 5.00

MACI	BETA	ON	CLM	CY	CYN	COL	CA	CAS	CL	CD	L/O
2.990	-10.530	.68640	-.08280	.13000	.01110	.01900	.08330	.01990	.61020	.32780	1.68140
2.990	-8.540	.68950	-.08290	.10080	.01020	.01480	.08270	.02010	.61240	.32800	1.68710
2.990	-6.500	.69020	-.08180	.07110	.00960	.01090	.08230	.02000	.61220	.32780	1.68780
2.990	-4.470	.68800	-.07910	.04210	.00800	.00870	.08310	.01970	.61180	.32830	1.68360
2.990	-2.430	.68530	-.07660	.01580	.00620	.00250	.09400	.01950	.60990	.32810	1.65560
2.990	-.390	.68630	-.07600	-.00560	.00140	.00000	.09310	.01910	.61020	.32780	1.68210
2.990	1.680	.68340	-.07590	-.02460	-.00300	-.00250	.09270	.01920	.60780	.32830	1.68190
2.990	3.690	.68410	-.07620	-.05100	-.00560	-.00800	.09190	.01930	.60930	.32970	1.68790
2.990	5.790	.68320	-.07930	-.08000	-.00640	-.01040	.09200	.01920	.60780	.32930	1.68690
2.990	7.840	.67920	-.07930	-.11030	-.00780	-.01480	.09180	.01960	.60400	.32930	1.68470
2.990	9.800	.67840	-.08030	-.13960	-.00900	-.01810	.09280	.01960	.60290	.32450	1.63780
2.990	-.390	.68540	-.07690	-.00680	.00130	-.00010	.09320	.01910	.60930	.32740	1.68090
GRADIENT	-.00047	.00012	-.01109	-.00178	-.00146	-.00005	-.00018	-.00005	-.00039	-.00034	.00073

RUN NO. 242/ 0 RML = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

MACI	BETA	ON	CLM	CY	CYN	COL	CA	CAS	CL	CD	L/O
4.999	-10.370	.57740	-.08910	.10080	.01100	.01320	.08230	.00490	.51370	.27630	1.69820
4.999	-8.430	.59240	-.08610	.08100	.00900	.01280	.08040	.00510	.51900	.27820	1.67870
4.999	-6.420	.59400	-.08720	.05800	.00660	.01000	.07680	.00520	.52100	.27930	1.69220
4.999	-4.400	.58210	-.08490	.03640	.00410	.00890	.07780	.00520	.51970	.27950	1.69960
4.999	-2.380	.59400	-.08450	.01420	.00340	.00340	.07740	.00510	.52150	.27400	1.80320
4.999	-.340	.58330	-.08360	-.00520	.00100	.00010	.07680	.00520	.52110	.27500	1.90870
4.999	1.670	.59370	-.08390	-.02480	-.00270	-.00290	.07630	.00520	.52190	.27590	1.91100
4.999	3.690	.58180	-.08340	-.04500	-.00340	-.00620	.07710	.00510	.51980	.27500	1.90330
4.999	5.740	.58040	-.08600	-.06850	-.00560	-.00990	.07770	.00520	.51800	.27310	1.89690
4.999	7.740	.58000	-.08560	-.09760	-.00800	-.01210	.07850	.00540	.51740	.27380	1.89060
4.999	9.800	.57780	-.08480	-.11100	-.01030	-.01490	.07980	.00540	.51470	.27390	1.87930
4.999	-.340	.58380	-.08300	-.00590	.00070	.00000	.07670	.00520	.52150	.27330	1.90790
GRADIENT	-.00004	.00008	-.01008	-.01001	-.00105	-.00161	-.00010	-.00000	-.00001	-.00010	.00076

MSFC 574 (0448) CRB 139

REFERENCE DATA

SRCT = 2080.0000 36.77. WARP = 638.7000 IN.
 LREF = 474.0000 IN. YREF = .0000 IN.
 BRCT = 936.7000 IN. ZREF = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

ALPHA = 30.000 ELEVTR = .000
 AIRCON = .000 BOFLAP = .000
 SPDRK = 999.999

RUN NO. 241/ 0 RML = 4.12 GRADIENT INTERVAL = -5.00/ 5.00

MACN	BETA	ON	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
2.990	-10.490	1.12210	-1.1840	.10450	.01680	.02220	.09810	.01940	.91280	.67970	1.36350
2.990	-8.320	1.12420	-1.1280	.07820	.01610	.01700	.09550	.01990	.91490	.68000	1.36810
2.990	-6.500	1.13140	-1.12500	.05220	.01420	.01160	.09450	.02000	.92150	.68350	1.36960
2.990	-4.460	1.13400	-1.12410	.02900	.01150	.00670	.09360	.01970	.92400	.68400	1.37150
2.990	-2.410	1.12630	-1.12540	.00580	.00750	.00250	.09200	.01940	.91840	.68400	1.37460
2.990	-.320	1.13530	-1.12510	-.01310	.00160	-.00790	.09500	.01940	.92550	.68400	1.37370
2.990	1.000	1.13450	-1.12550	-.00950	-.00460	-.00350	.09220	.01940	.92310	.68290	1.37360
2.990	3.690	1.13170	-1.12530	-.02320	-.00660	-.00750	.09180	.01940	.91900	.68110	1.37430
2.990	5.780	1.12840	-1.12560	-.07740	-.01140	-.01250	.09270	.01960	.91510	.65700	1.39280
2.990	7.820	1.12280	-1.12220	-.10440	-.01560	-.02180	.09380	.01930	.90820	.63300	1.36760
2.990	9.770	1.11300	-1.12020	-.12960	-.01660	-.02180	.09310	.01940	.92550	.64410	1.39350
2.990	-.350	1.13530	-1.12370	-.01270	.00140	-.00310	.09310	.01940	.92550	.64410	1.39350
2.990	GRADIENT	.00018	-.00022	-.00974	-.00255	-.00165	-.00019	-.00004	.00025	-.00006	.00051

RUN NO. 241/ 0 RML = 4.94 GRADIENT INTERVAL = -5.00/ 5.00

MACN	BETA	ON	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
4.999	-10.340	1.02220	-1.10270	.08080	.01560	.01780	.09660	.00440	.83630	.59450	1.40710
4.999	-8.420	1.02630	-1.10440	.06240	.01210	.01450	.09620	.00450	.84010	.59610	1.40930
4.999	-6.420	1.02780	-1.10440	.04290	.00940	.01040	.09600	.00460	.84230	.59490	1.41590
4.999	-4.400	1.03220	-1.10260	.02320	.00660	.00670	.09210	.00470	.84820	.59590	1.42220
4.999	-2.380	1.03500	-1.10510	.00430	.00400	.00280	.09360	.00470	.84990	.59680	1.42440
4.999	-.340	1.03680	-1.10840	-.01110	.00050	-.00070	.09220	.00480	.84850	.59450	1.42770
4.999	1.070	1.03270	-1.10360	-.02950	-.00350	-.00420	.09270	.00490	.84870	.59410	1.42850
4.999	3.670	1.03410	-1.10480	-.04690	-.00590	-.00810	.09290	.00490	.84450	.59560	1.42810
4.999	5.740	1.02900	-1.10400	-.06650	-.00870	-.01190	.09380	.00480	.83970	.59150	1.41670
4.999	7.710	1.02290	-1.10480	-.08650	-.01220	-.01550	.09460	.00490	.83150	.58780	1.41470
4.999	9.680	1.01440	-1.10550	-.10590	-.01570	-.01820	.09540	.00490	.81500	.59280	1.42920
4.999	-.340	1.03080	-.10220	-.01110	.00070	-.00050	.09160	.00500	.84720	.59280	1.42920
4.999	GRADIENT	.00027	-.00013	-.00681	-.00161	-.00180	-.00020	.00003	.00006	-.00004	-.00000

DATE 28 SEP 73

TRANSLATED SOURCE DATA - MSFC TWT 574

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MSFC 574 (0448) CRB 139

(087055) (17 SEP 73)

REFERENCE DATA

SREF = 2890.0000 38. FT. XMRP = 836.7000 IN.
 LREF = 474.8000 IN. YMRP = .0000 IN.
 BREF = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

ALPHA = 40.000 ELEVTR = .000
 ATLRON = .000 BOFLAP = .000
 SPDRK = 999.990

RUN NO. 2477 D RM/L = 4.99 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CH	CLM	CT	LYN	CEL	CA	CAB	CL	CD	L/D
4.999	-10.400	1.48200	-1.18200	.06530	.01930	.01960	.09590	.00410	1.06160	1.05340	1.02230
4.999	-8.440	1.49360	-1.17990	.04690	.01960	.01590	.09490	.00420	1.07090	1.04940	1.02440
4.999	-6.440	1.50610	-1.18080	.03040	.01170	.01230	.09230	.00430	1.08200	1.03170	1.02660
4.999	-4.400	1.50850	-1.18200	.01290	.00920	.00930	.09990	.00450	1.08590	1.03190	1.03290
4.999	-2.360	1.51240	-1.18280	.00320	.00470	.00320	.09990	.00460	1.08630	1.03400	1.03240
4.999	-.340	1.50980	-1.17990	.01670	.00100	.00030	.09990	.00450	1.08630	1.03190	1.03260
4.999	1.680	1.50860	-1.18280	.03290	.00360	.00360	.09790	.00450	1.08660	1.03000	1.03490
4.999	3.670	1.50320	-1.18090	.04910	.00760	.00750	.09640	.00450	1.08370	1.04890	1.03370
4.999	5.790	1.49700	-1.15650	.06720	.01100	.01130	.09640	.00430	1.07770	1.04290	1.03340
4.999	7.770	1.48980	-1.15480	.08390	.01460	.01510	.09680	.00440	1.06990	1.03540	1.03270
4.999	9.690	1.47190	-1.14940	.09920	.01840	.01810	.09950	.00440	1.04910	1.02710	1.03080
4.999	-3.40	1.50830	-1.17990	.01740	.00260	.00220	.09910	.00450	1.08370	1.03080	1.03310
4.999	GRADIENT	-0.00051	.00010	.00760	.00208	.00190	.00020	.00000	.00025	.00049	.00084

DATE 28 SEP 73

TABULATED SOURCE DATA - NSFC TWT 574
(R07056) (17 SEP 73)

NSFC 574 (0448) CRB 139

REFERENCE DATA

SRZF = 2890.0000 28. FT. XPRP = 436.7000 IN.
LWRF = 474.8000 IN. YPRP = .0000 IN.
EWRF = 936.7000 IN. ZPRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
AILRON = .000 BDFLAP = 13.750
SPCRK = 999.990

RUN NO. 0/ 0 RWL = 4.97 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CH	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
.804	-3.50	.08880	-.00780	.00080	.00080	.00220	.06720	.03630	.00320	.00080	.94590
.804	.480	1.15440	-.00330	.00140	.00190	.00190	.06150	.05470	1.15380	.07160	16.11960
.804	3.590	.29820	-.01650	.00430	.00190	.00230	.06020	.03510	.29500	.07630	3.33080
.804	9.720	.37820	-.02270	.00520	.00190	.00190	.03120	.03370	.37100	.08870	4.18230
.804	7.82	.48630	-.03810	.01080	.00230	.00280	.04470	.03480	.47570	.11050	4.30480
.804	9.940	.57850	-.04300	.01090	.00190	.00280	.05950	.03580	.56030	.15410	3.63810
.804	12.030	.68720	-.04970	.00750	.00040	.00000	.05670	.03780	.68030	.19080	3.32790
.804	14.180	.80880	-.04970	.01460	.00030	.00180	.03350	.04020	.78880	.24980	3.07980
.804	16.340	.94040	-.05580	.01430	.00000	.01050	.03220	.04410	.88770	.31480	2.81930
.804	18.440	1.07280	-.06010	.01930	.00180	.00190	.03190	.05720	1.00140	.38830	2.57870
GRADIENT	-.04266	.00180	.00147	.00017	.00005	-.00143	-.00199	-.04362	.00216	.00444	

RUN NO. 0/ 0 RWL = 6.25 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CH	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
.805	-4.10	.08810	-.00820	.00080	.00100	-.00020	.06210	.03780	.00880	.08180	.95320
.805	1.880	.18870	-.01800	.00120	.00100	-.00100	.06280	.03780	.18820	.10820	2.11080
.805	3.820	.30350	-.03020	.00700	.00180	.00020	.06480	.03720	.29710	.10890	2.77770
.805	5.990	.40480	-.04370	.00890	.00190	-.00100	.06850	.03830	.39320	.13130	2.99540
.805	6.130	.50100	-.05650	.01240	.00230	.00030	.09280	.03940	.48290	.18270	2.96620
.805	10.310	.62230	-.07220	.01330	.00210	.00280	.09430	.04080	.59340	.20420	2.81670
.805	12.290	.77120	-.10180	.02190	.00330	.00590	.10270	.04530	.75050	.28780	2.72880
.805	14.710	.88370	-.11300	.01810	.00130	.00970	.10440	.05010	.83790	.38920	2.53440
.805	16.930	1.02580	-.12980	.01480	.00080	.00180	.11230	.05780	.94840	.47820	2.33480
.805	19.080	1.11970	-.13150	.01830	.00140	.00030	.11830	.06740	1.01840	.47820	2.13240
.805	21.080	1.18840	-.10820	.01580	-.00010	-.00220	.12300	.07780	1.04310	.53700	1.94610
GRADIENT	.05340	-.00320	.00019	.00012	.00005	.00112	-.00014	.05376	.00620	.00620	.45384

REFERENCE DATA

SREF = 2890.0000 56.47. XREF = 838.7000 IN.
 LREF = 474.8000 IN. YREF = .0000 IN.
 BREF = 934.7000 IN. ZREF = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 ALLCON = .000 BOFLAP = 13.750
 SPORR = 999.999

RUN NO. 01 0 RVAL = 6.06 GRADIENT INTERVAL = -5.00/ 5.00

WCH	ALPHA	ON	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/O
1.201	-2.70	.13760	-.03000	.00000	.00150	-.00050	.18570	.08280	.13950	.18500	.74830
1.201	1.800	.28560	-.05640	-.00250	.00180	-.00120	.18760	.06330	.25960	.19810	1.32410
1.201	4.000	.39240	-.08130	-.00400	.00180	-.00150	.18940	.06340	.37820	.21840	1.74750
1.201	6.210	.50800	-.09710	-.00570	.00200	-.00200	.18910	.06470	.48450	.24300	1.99340
1.201	8.430	.61560	-.10880	-.00660	.00250	-.00120	.18800	.06870	.56150	.27000	2.10440
1.201	10.680	.75750	-.13510	-.01160	.00300	.00280	.18740	.06840	.70960	.32460	2.18540
1.201	12.920	.86640	-.15440	-.01190	.00280	.00280	.18790	.06950	.82190	.36140	2.15450
1.201	15.150	1.00240	-.16790	-.01420	.00260	.00260	.18940	.07240	.91790	.44510	2.03210
1.201	17.340	1.10300	-.17320	-.01780	.00360	.00140	.19080	.07560	.99800	.51100	1.94890
1.201	19.530	1.20220	-.17440	-.02460	.00320	.00190	.19150	.07910	1.06900	.56240	1.83320
1.201	21.800	1.29930	-.18140	-.02220	.00330	.00050	.19040	.08110	1.13790	.65540	1.73560
GRADIENT		.05958	-.01195	-.00120	.00007	-.00028	.00086	.00019	.05396	.00733	.23258

RUN NO. 02 0 RVAL = 7.14 GRADIENT INTERVAL = -5.00/ 5.00

WCH	ALPHA	ON	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/O
1.945	-4.10	.06060	-.02970	.00010	.00120	-.00050	.14640	.03340	.06160	.14800	.42220
1.945	1.800	.14890	-.04390	-.00110	.00140	-.00050	.14590	.03290	.14280	.19050	.84950
1.945	3.800	.23270	-.05620	-.00270	.00160	-.00070	.14510	.03280	.22250	.18000	1.38620
1.945	6.000	.33330	-.07440	-.00290	.00130	-.00050	.14800	.03210	.31820	.18010	1.75540
1.945	8.100	.41840	-.08680	-.00460	.00160	-.00040	.14560	.03100	.39160	.20130	1.94890
1.945	10.360	.50560	-.09770	-.00590	.00150	-.00050	.14140	.03240	.47190	.23010	2.05050
1.945	12.560	.59470	-.10720	-.00710	.00170	-.00040	.14010	.03390	.55000	.26610	2.04540
1.945	14.710	.68760	-.11650	-.00810	.00180	-.00030	.13960	.03370	.62960	.30560	2.03170
1.945	16.900	.78120	-.12570	-.01060	.00210	-.00030	.13650	.03430	.70690	.34010	1.96320
1.945	19.110	.88100	-.13670	-.01250	.00210	-.00020	.13770	.03510	.78720	.41870	1.86010
1.945	21.210	.97370	-.14610	-.01340	.00250	-.00030	.13690	.03710	.85820	.47990	1.78800
GRADIENT		.04067	-.00677	-.00067	.00010	-.00013	-.00031	-.00014	.03621	.00340	.22932

DATE 26 SEP 73

TABULATED SOURCE DATA - NSFC TWT 374

PAGE 102

NSFC 374 (0448) CRB 139

(R07058) (17 SEP 73)

REFERENCE DATA

SREF = 2000.0000 98. FT. XREF = 839.7000 IN.
 LREF = 474.0000 IN. YREF = .0000 IN.
 BREF = 936.7000 IN. ZREF = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 AILCON = .000 BOFLAP = 15.750
 SPDRK = 999.990

RUN NO. Q/ D RW/L = 4.10 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	ON	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
2.990	-5.510	.00440	-.03210	.00060	.00050	-.00060	.10960	.01790	.00340	.10960	.04920
2.990	1.460	.00670	-.03530	-.00230	.00000	-.00010	.10900	.01790	.00350	.11040	.49780
2.990	3.500	.11600	-.03670	-.00310	.00050	-.00040	.10770	.01850	.10930	.11390	.99940
2.990	5.590	.18080	-.04590	-.00290	.00070	-.00030	.10460	.01870	.10960	.12160	1.39410
2.990	7.600	.24570	-.05020	-.00400	.00060	-.00040	.10360	.01910	.10930	.13330	1.60710
2.990	9.720	.31680	-.05790	-.00410	.00060	-.00030	.10260	.01930	.10900	.15460	1.90600
2.990	11.800	.38800	-.06400	-.00430	.00060	-.00020	.10220	.01930	.10950	.17960	2.00350
2.990	13.830	.46210	-.07280	-.00410	.00120	-.00020	.10270	.01920	.10920	.21020	2.01720
2.990	15.970	.54090	-.08160	-.00660	.00090	-.00040	.10110	.01870	.10920	.24600	2.00020
2.990	18.030	.61920	-.09090	-.00630	.00070	-.00030	.10130	.01870	.10940	.28610	1.93300
2.990	20.010	.69900	-.10000	-.00910	.00070	-.00030	.10150	.01870	.10920	.33460	1.85960
2.990	GRADIENT	.02783	-.00163	-.00092	.00070	-.00005	-.00070	.00015	.00291	.00103	.22097

RUN NO. Q/ D RW/L = 5.00 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	ON	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
4.999	-5.520	-.02430	-.03590	-.00150	.00090	-.00030	.06400	.00360	-.00390	.06420	-.27970
4.999	1.420	.01860	-.03600	.00090	.00050	.00000	.06310	.00420	.01670	.06390	.20050
4.999	3.430	.06220	-.03620	.00050	.00120	-.00020	.06030	.00440	.05750	.06360	.66340
4.999	5.460	.11230	-.03900	-.00060	.00110	-.00040	.07600	.00440	.10460	.06640	1.18300
4.999	7.480	.16370	-.04310	-.00120	.00110	-.00040	.07670	.00450	.15430	.09760	1.56040
4.999	9.530	.22260	-.04990	-.00220	.00090	-.00040	.07590	.00450	.20710	.11170	1.85410
4.999	11.560	.28430	-.04630	-.00410	.00140	-.00060	.07450	.00460	.26340	.13090	2.01850
4.999	13.600	.35360	-.05690	-.00270	.00060	-.00030	.07570	.00460	.32630	.15660	2.07900
4.999	15.690	.42650	-.06350	-.00340	.00060	-.00030	.07630	.00460	.36990	.18690	2.06420
4.999	17.710	.50000	-.07300	-.00350	.00050	-.00030	.07740	.00470	.45270	.22590	2.00410
4.999	19.660	.57710	-.07930	-.00560	.00120	-.00100	.07870	.00460	.51700	.26630	1.92650
4.999	GRADIENT	.02190	-.00010	.00025	.00006	.00002	-.00094	.00015	.02045	-.00010	.24360

MSFC 574 (0448) ORB 139

(REPLUST) (17 SEP 73)

REFERENCE DATA

SURF = 2690.0000 36.1 FT. XMRP = 836.7700 IN.
 LREF = 474.8000 IN. YMRP = .0000 IN.
 ORF = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 AIRLON = .000 BDFLAP = 13.750
 SPDRCK = 999.990

RUN NO. 232/ 0 RNVL = 4.10 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	ON	CLN	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	20.590	.70700	-.10040	-.01000	.00030	-.00030	.10300	.01860	.62560	.34320	1.81210
2.990	22.590	.78700	-.11100	-.01080	.00020	-.00040	.10280	.01850	.68700	.39740	1.72890
2.990	24.600	.87720	-.12140	-.01130	.00000	-.00040	.10370	.01840	.75380	.46030	1.63730
2.990	26.760	.96720	-.13070	-.01260	.00010	-.00060	.10450	.01890	.81650	.52880	1.54390
2.990	28.850	1.06110	-.14290	-.01440	.00030	-.00110	.10460	.01900	.87880	.60390	1.45900
2.990	30.970	1.15640	-.15270	-.01530	.00110	-.00140	.10350	.01900	.93720	.68560	1.36700
2.990	33.060	1.25430	-.16370	-.01640	.00080	-.00130	.10390	.01930	.99300	.77350	1.28370
2.990	35.140	1.35020	-.17560	-.01900	.00130	-.00180	.10630	.01930	1.04280	.86420	1.20670
2.990	37.280	1.44970	-.18790	-.01890	.00190	-.00190	.10680	.01930	1.08870	.96320	1.13030
2.990	39.350	1.54820	-.20170	-.02230	.00220	-.00240	.10750	.01920	1.12880	1.06500	1.05990
2.990	41.390	1.64260	-.21070	-.02140	.00270	-.00190	.10770	.01920	1.16180	1.16620	.99620
2.990	43.970	1.74410	-.21220	-.01550	.00110	-.00150	.10330	.01910	.94390	.68950	1.36890
2.990	46.440	1.84520	-.20533	-.00061	.00010	-.00010	.00025	.00004	.02621	.03973	-.03972

RUN NO. 233/ 0 RNVL = 4.92 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	ON	CLN	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.999	20.250	.58350	-.07890	-.00850	.00030	-.00050	.08200	.00390	.51910	.27890	1.86090
4.999	22.210	.66220	-.08650	-.00880	.00030	-.00030	.08360	.00410	.58140	.32780	1.77340
4.999	24.270	.75270	-.09570	-.00920	.00040	-.00000	.08610	.00400	.65080	.38800	1.67770
4.999	26.300	.84350	-.10500	-.01000	.00030	-.00010	.08840	.00400	.71690	.45300	1.58240
4.999	28.360	.93950	-.12020	-.01120	-.00000	-.00000	.09010	.00410	.78390	.52560	1.49130
4.999	30.440	1.03630	-.12810	-.01230	.00010	-.00180	.09270	.00430	.84820	.60800	1.39980
4.999	32.490	1.13700	-.14260	-.01550	.00080	-.00180	.09500	.00430	.90790	.69100	1.31370
4.999	34.530	1.23390	-.15480	-.01730	.00120	-.00110	.09700	.00430	.96140	.77950	1.23340
4.999	36.630	1.33450	-.17000	-.01850	.00110	-.00160	.10000	.00420	1.01120	.87650	1.15360
4.999	38.660	1.43210	-.18320	-.01950	.00130	-.00140	.10330	.00400	1.06890	.98820	1.08170
4.999	40.620	1.53180	-.19380	-.01680	.00030	-.00130	.10440	.00410	1.09440	1.07660	1.01650
4.999	42.490	1.64490	-.21320	-.01320	-.00010	-.00030	.09290	.00430	.85380	.67950	1.40070
4.999	44.714	.04714	-.00564	-.00056	.00003	-.00007	.00113	.00001	.02893	.03955	-.04186

PARAMETRIC DATA
 BETA = .000 ELEVTR = .000
 AILRON = .000 BOFLAP = -14.250
 SPDRK = 999.990

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 638.7000 IN.
 LREF = 474.8000 IN. YMRP = .0000 IN.
 BREF = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

RUN NO. 0/ 0 RV/L = 7.15 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
1.948	-4.00	.03720	-.00690	.00000	.00090	-.00030	.14160	.03130	.03620	.14140	.27030
1.948	1.490	.12280	-.02100	-.00160	.00120	-.00060	.14040	.03100	.11870	.14390	.82440
1.948	3.810	.20710	-.03310	-.00220	.00140	-.00060	.13910	.03060	.19730	.19250	1.29350
1.948	6.010	.30360	-.04600	-.00320	.00110	-.00050	.13890	.02940	.28740	.17000	1.69060
1.948	8.150	.38460	-.05620	-.00440	.00110	-.00050	.13650	.02960	.36140	.19970	1.90470
1.948	10.390	.47850	-.06630	-.00580	.00130	-.00040	.13480	.03100	.44450	.21830	2.03560
1.948	12.550	.56250	-.07380	-.00690	.00130	-.00050	.13280	.03180	.52020	.25190	2.06470
1.948	14.660	.63990	-.07960	-.00780	.00150	-.00050	.12830	.03260	.58650	.28630	2.04820
1.948	16.920	.74190	-.08700	-.00990	.00140	-.00050	.12750	.03360	.67260	.33790	1.99020
1.948	19.100	.83820	-.09580	-.01120	.00160	-.00050	.12450	.03480	.75110	.39200	1.91620
1.948	21.210	.93820	-.10480	-.01190	.00190	-.00060	.12480	.03610	.82940	.45580	1.81970
1.948	10.330	.46740	-.06460	-.00340	.00140	-.00050	.13250	.03070	.43610	.21420	2.03550
1.948	GRADIENT	.04034	-.00575	-.00052	.00012	-.00007	-.00059	-.00017	.03778	.00265	.24281

RUN NO. 0/ 0 RV/L = 4.15 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	-3.820	-.01060	-.02070	.00160	-.00010	.00000	.10850	.01770	-.00960	.10860	-.08860
2.990	1.490	.04420	-.02270	.00010	-.00020	.00010	.10700	.01790	.04140	.10810	.36340
2.990	3.490	.10250	-.02470	-.00090	.00020	.00000	.10470	.01810	.09570	.11070	.86410
2.990	5.990	.17170	-.02850	-.00150	.00070	.00000	.10170	.01820	.16100	.11800	1.36450
2.990	7.630	.22830	-.03260	-.00260	.00060	.00010	.09980	.01820	.21300	.12930	1.64740
2.990	9.720	.29700	-.03490	-.00280	.00100	.00000	.09760	.01820	.27630	.14640	1.88730
2.990	11.810	.36750	-.04030	-.00330	.00040	.00000	.09660	.01810	.33990	.16980	2.00120
2.990	13.850	.43550	-.04410	-.00350	.00170	.00000	.09500	.01790	.40010	.19650	2.03560
2.990	15.970	.51370	-.05100	-.00540	.00090	.00000	.09410	.01800	.46800	.23180	2.01870
2.990	18.030	.59070	-.05710	-.00690	.00050	.00000	.09300	.01820	.53290	.27130	1.96400
2.990	19.990	.66750	-.06340	-.00720	.00050	.00000	.09220	.01820	.59550	.31480	1.89160
2.990	29.950	.92930	-.03490	-.00320	.00050	-.00010	.09750	.01820	.27850	.14670	1.89840
2.990	GRADIENT	.02816	-.00100	-.00062	.00008	-.00000	-.00095	.00010	.02626	.00053	.23757

DATE 28 SEP 73 TABULATED SOURCE DATA - MSFC TWT 574

(R07056) (17 SEP 73)

MSFC 574(0A48) ORB 139

REFERENCE DATA

SREF = 2890.0000 50. FT. XMRP = 636.7000 IN.
 LREF = 474.6000 IN. YMRP = .0000 IN.
 SREF = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 AIRLON = .000 BOFLAP = -14.250
 SPD8RK = 999.990

RUN NO. 0/ 0 RV/L = 4.96 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	C ² L	CA	CAB	CL	CD	L/D
4.959	-1.520	-.03000	-.03070	.00120	.00110	-.00035	.06430	.00380	-.02920	.08460	-.34390
4.959	1.420	.01200	-.03100	.00240	.00060	-.00030	.06200	.00400	.00990	.08220	.12120
4.959	3.440	.05450	-.03060	-.00040	.00080	-.00050	.07910	.00400	.04970	.08230	.60400
4.959	5.450	.10230	-.03190	.00060	.00140	-.00040	.07630	.00410	.09450	.08390	1.10040
4.959	7.490	.15590	-.03260	-.00030	.00120	-.00040	.07530	.00420	.14480	.09500	1.52330
4.959	9.540	.20990	-.03630	-.00210	.00090	-.00030	.07330	.00410	.19480	.10720	1.81770
4.959	11.560	.27340	-.04000	-.00260	.00050	-.00060	.07330	.00430	.25310	.12670	1.99680
4.959	13.600	.33490	-.04340	-.00380	.00070	-.00070	.07250	.00430	.30840	.14920	2.06620
4.959	15.690	.40590	-.04550	-.00390	.00060	-.00070	.07320	.00430	.37100	.18030	2.05770
4.959	17.710	.47620	-.04740	-.00390	.00110	-.00050	.07400	.00440	.43300	.21670	2.00380
4.959	19.830	.54810	-.05420	-.00590	.00120	-.00090	.07400	.00430	.49130	.25410	1.93340
4.959		.62134	.00003	-.00041	-.00007	-.00005	-.00131	.00005	.01992	-.00058	.23987

GRADIENT

TABULATED SOURCE DATA - NSFC TWT 374

DATE 28 SEP 73

(287036) (08 SEP 73)

NSFC 374 (0448) ORB 139

REFERENCE DATA

SREF = 2660.0000 96.00 FT. XMRP = 836.7000 IN.
 LREF = 474.8000 IN. YMRP = .0000 IN.
 BREF = 938.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 AIRLON = .000 BCLAP = -14.250
 SPDBRK = 999.990

RUN NO. 0/ 0 RVL = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CL
.596	-.440	-.00830	.04070	.00230	.00040	.00270	-.00790
.596	1.540	.06830	.03730	-.00040	.00040	.00280	.08670
.596	3.810	.19040	.03300	-.00150	.00090	.00260	.18630
.596	5.700	.29870	.02630	-.00550	.00110	.00250	.29250
.596	7.800	.41200	.01770	-.01150	.00200	.00240	.40260
.596	9.900	.50280	.01030	-.01180	.00160	.00270	.48680
.598	11.990	.59820	.00430	-.01110	.00150	.00330	.57470
.598	14.090	.71370	.00430	-.01920	.00200	.01080	.68090
.598	16.220	.82770	.00300	-.01520	.00100	.00940	.76210
.598	18.300	.94670	.00770	-.01760	.00190	.00790	.86680
.598	20.290	1.03780	.01490	-.01830	.00290	.00000	.95700
.598	9.900	.49540	.01270	-.00880	.00170	.00240	.47970
GRADIENT		.04906	-.00190	-.00094	.00012	.00002	.04800

RUN NO. 0/ 0 RVL = 5.09 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CL
.699	-.410	-.00330	.04970	.00200	.00070	.00040	-.00260
.699	1.680	.13360	.03010	-.00380	.00110	-.00120	.13120
.699	3.810	.23760	.02380	-.00530	.00150	-.00020	.23170
.699	5.950	.33430	.01370	-.00740	.00170	-.00090	.32380
.699	8.070	.41750	.00340	-.01170	.00260	.00170	.40130
.699	10.260	.53860	-.00950	-.01390	.00200	.00360	.51430
.699	12.450	.67880	-.03180	-.02040	.00360	.00380	.64300
.699	14.660	.80710	-.04630	-.01730	.00210	.00280	.73640
.699	16.830	.91960	-.04510	-.01420	.00020	.00300	.85000
.699	18.960	.99430	-.03900	-.01540	.00080	.00020	.90480
.699	20.960	1.04120	-.01040	-.01130	-.00170	-.00010	.93100
.699	10.270	.54910	-.01110	-.01380	.00200	.00360	.52450
GRADIENT		.05706	-.00613	-.00125	.00019	-.00014	.05554

(287038) (08 SEP 73)

MSFC 574(0448) CRB 139

PARAMETRIC DATA

REFERENCE DATA

BETA = .000
ELEVTR = .000
AIRLON = .000
SPDRK = 999.990

SRF = 2690.0000 SQ.FT.
LREF = 474.8000 IN.
SRF = 938.7000 IN.
SCALE = .0040

RUN NO. D/O RVL = 6.53 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CBL	CL
1.199	-.280	.09800	.01120	.00140	.00070	-.00010	.09890
1.199	1.840	.22510	-.01300	-.00070	.00110	-.00110	.21920
1.199	4.030	.34730	-.03340	-.00280	.00100	-.00110	.33320
1.199	6.220	.45820	-.04570	-.00440	.00130	.00000	.43630
1.199	8.420	.56940	-.05660	-.00780	.00160	.00100	.53800
1.199	10.680	.70860	-.08070	-.01020	.00210	.00250	.66390
1.199	12.970	.83800	-.09930	-.01240	.00220	.00170	.77760
1.199	15.120	.94940	-.11010	-.01300	.00200	.00090	.87070
1.199	17.320	1.05990	-.11830	-.01590	.00260	.00070	.95540
1.199	19.480	1.14990	-.11790	-.02480	.00510	.00220	1.02600
1.199	21.550	1.24140	-.11970	-.02080	.00260	.00080	1.09130
1.199	10.690	.71300	-.08130	-.01000	.00200	.00260	.66820
1.199		.05783	-.01034	-.00097	.00007	-.00025	.05451

DATE 28 SEP 73

TABULATED SOURCE DATA - MSFC TWT 574

(R87039) (17 SEP 73)

MSFC 574 (0448) CRB 139

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
AILRON = .000 BDFLAP = -14.250
SPDRK = 999.990

REFERENCE DATA

SREP = 2090.0000 24. FT. YMRP = 836.7000 IN.
LREF = 474.0000 IN. YMRP = .0000 IN.
SREP = 936.7000 IN. ZMRP = .0000 IN.
SCALE = .0040

RUN NO. 227/ 0 RVL = 4.12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBK	CA	CAB	CL	CD	L/D
2.990	20.800	.67600	-.04560	-.01050	-.00010	-.00050	.09230	.01830	.60100	.32250	1.69170
2.990	22.800	.75640	-.07110	-.01050	-.00010	-.00050	.09170	.01820	.66500	.37530	1.76630
2.990	24.800	.84360	-.07930	-.01140	-.00010	-.00050	.09290	.01820	.72760	.43690	1.86950
2.990	26.780	.93180	-.08560	-.01190	-.00010	-.00050	.09230	.01840	.79040	.50200	1.97440
2.990	28.630	1.02020	-.09360	-.01400	-.00000	-.00090	.09160	.01840	.84930	.57260	2.10330
2.990	30.970	1.11360	-.10070	-.01490	.00070	-.00130	.09240	.01850	.90720	.62230	2.25970
2.990	33.090	1.20920	-.10900	-.01600	.00050	-.00110	.09070	.01900	.96370	.73640	2.43970
2.990	35.140	1.30080	-.11840	-.01850	.00060	-.00160	.09030	.01950	1.01150	.82250	2.62970
2.990	37.280	1.39620	-.12810	-.02130	.00070	-.00190	.08950	.01960	1.05620	.91620	2.82970
2.990	39.360	1.49400	-.13690	-.02190	.00140	-.00180	.08760	.01970	1.09950	1.01600	3.03970
2.990	41.350	1.58680	-.14660	-.02190	.00140	-.00180	.08760	.01950	1.13320	1.11410	3.25970
2.990	43.970	1.68300	-.15100	-.01460	.00150	-.00110	.09110	.01870	.91270	.65430	3.49970
2.990	46.990	1.78360	-.15394	-.00060	.00006	-.00009	-.00022	.00009	.02593	.03616	3.74970
2.990	50.440	1.88800	-.15378	-.00058	.00001	-.00003	.00043	.00002	.02795	.03732	4.00970

RUN NO. 226/ 0 RVL = 4.96 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBK	CA	CAB	CL	CD	L/D
4.999	20.240	.56240	-.05400	-.00820	.00070	-.00120	.07660	.00390	.50110	.26650	1.66030
4.999	22.210	.64150	-.05990	-.00910	.00020	-.00110	.07690	.00370	.56460	.31360	1.79980
4.999	24.270	.72540	-.06320	-.00870	.00040	-.00100	.07610	.00390	.62910	.36940	1.90300
4.999	26.300	.81120	-.06950	-.00970	.00040	-.00080	.07690	.00380	.69220	.43020	2.01890
4.999	28.350	.90230	-.07840	-.01140	-.00020	-.00100	.07920	.00400	.75640	.49830	2.15170
4.999	30.430	.99640	-.08560	-.01250	-.00010	-.00110	.08090	.00410	.81610	.57460	2.30370
4.999	32.490	1.09190	-.09290	-.01430	.00020	-.00130	.08210	.00420	.87660	.65580	2.46690
4.999	34.530	1.18670	-.10070	-.01540	.00090	-.00170	.08320	.00390	.93070	.74070	2.63640
4.999	36.630	1.28260	-.11140	-.01720	.00090	-.00210	.08420	.00420	.97980	.83220	2.81730
4.999	38.670	1.38170	-.12100	-.01910	.00080	-.00190	.08510	.00430	1.02610	.92920	3.00330
4.999	40.620	1.47260	-.13050	-.01820	.00000	-.00190	.08510	.00400	1.06220	1.02340	3.19790
4.999	42.440	1.56680	-.13950	-.01200	.00000	-.00100	.08140	.00420	.82450	.57910	3.42390
4.999	44.990	1.66300	-.14690	-.01200	.00000	-.00003	.00043	.00002	.02795	.03732	3.74970

PARAMETRIC DATA

BETA = .000 ELEVTR = 15.000
 ATLRON = .000 BOFLAP = 15.750
 SPDRBK = 999.999

REFERENCE DATA

BRDF = 2000.0000 90.0PT. XRRP = 830.7020 IN.
 LREF = 474.8000 IN. YRRP = .0000 IN.
 BRDF = 936.7000 IN. ZRRP = .0000 IN.
 SCALE = .0040

RUN NO. 276/ 0 RNL = 4.93 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	CN	CLM	CY	CYN	CL	CA	CAB	CL	CD	L/D
.597	.42300	-.19360	-.00120	.00220	.00260	.10880	.04020	.42340	.10720	3.94820
.597	.50800	-.19120	-.00630	.00240	.00360	.10350	.03870	.50340	.11870	4.25700
.597	.60100	-.19960	-.00750	.00270	.00400	.09680	.03870	.59410	.13640	4.35250
.597	.70220	-.19370	-.01010	.00330	.00270	.08770	.03740	.68940	.15950	4.32140
.597	.84080	-.21100	-.01320	.00300	.00190	.08240	.03960	.82090	.19080	4.12770
.597	.88410	-.20330	-.01370	.00280	.00360	.10110	.04030	.89270	.25430	3.35200
.597	.99350	-.20970	-.01450	.00200	.00470	.09880	.04170	.95070	.30630	3.10290
.597	1.09280	-.20650	-.02290	.00230	.00500	.09970	.04430	1.03450	.36640	2.82240
.597	1.21580	-.20620	-.01980	.00130	.00970	.09680	.04850	1.13850	.43000	2.59920
.597	1.31450	-.20080	-.02140	.00250	.00930	.09980	.05670	1.21510	.51120	2.37870
.597	1.46970	-.20060	-.01680	.00180	.00000	.10460	.06560	1.24850	.57680	2.16100
.597	1.66950	-.21720	-.01340	.00280	.00360	.10260	.05990	.85890	.25690	3.35320
.597	.88870	-.20740	-.01340	.00280	.00360	.10260	.05990	.85890	.25690	3.35320
.597	.04448	.00099	-.00151	.00012	.00035	-.00304	-.00037	.04247	.00727	.10011

RUN NO. 277/ 0 RNL = 6.23 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	CN	CLM	CY	CYN	CL	CA	CAB	CL	CD	L/D
.699	.38010	-.20660	-.00770	.00250	.00290	.12990	.04330	.39040	.12870	3.03210
.699	.51220	-.21960	-.00790	.00230	.00140	.13020	.04190	.50780	.14700	3.45250
.699	.62190	-.22830	-.00970	.00250	.00140	.13090	.04110	.61110	.17440	3.50240
.699	.71520	-.23210	-.00830	.00190	-.00020	.13670	.04270	.69820	.21310	3.26580
.699	.80420	-.23850	-.01170	.00220	.00300	.14210	.04520	.77510	.25720	3.01260
.699	.92800	-.25920	-.01380	.00210	.00300	.15020	.04910	.86340	.31750	2.78350
.699	1.05670	-.27610	-.02130	.00300	.00310	.15690	.05310	.99600	.36630	2.57830
.699	1.16330	-.28170	-.01590	.00300	.00310	.16390	.06030	1.06210	.43740	2.36530
.699	1.23240	-.28730	-.01590	.00300	.00310	.16870	.06970	1.12880	.52270	2.15930
.699	1.25930	-.24740	-.00910	-.00340	-.00310	.17480	.09220	1.13230	.57810	1.95860
.699	1.340	-.19490	.01700	-.00460	-.00470	.17650	.09820	1.13680	.62970	1.80510
.699	1.28750	-.25670	-.01420	.00190	.00290	.14790	.0940	.89190	.31640	2.81530
.699	.93370	-.25670	-.01420	.00190	.00290	.14790	.0940	.89190	.31640	2.81530
.699	.05502	-.00514	-.00048	.00000	-.00035	.00024	-.00052	.05236	.01087	.11092

DATE 28 SEP 73

TABULATED SOURCE DATA - NSFC TMT 574
NSFC 574 (ON48) (RB 139)

(R87060) (17 SEP 75)

REFERENCE DATA

SRCP = 2000.0000 24. FT. XPRP = 836.7000 IN.
LREF = 474.0000 IN. YMRP = .0000 IN.
BRCP = 936.7000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = 15.000
AIIIRON = .000 BOFLAP = 13.750
SPORRK = 999.990

RUN NO. 276/ 0 RVL = 6.64 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAS	CL	CD	L/D
1.198	-130	.33600	-.17740	-.00050	.00170	.00060	.22650	.06570	.33660	.22750	1.47930
1.198	1.980	.47090	-.21000	-.00560	.00820	.00100	.23870	.06550	.48260	.24670	1.85990
1.198	4.180	.60670	-.23560	-.00510	.00820	.00020	.25640	.06630	.58760	.26000	2.09860
1.198	6.400	.73960	-.26010	-.00640	.00860	.00060	.24100	.06910	.70770	.32190	2.19630
1.198	8.610	.86140	-.27430	-.01120	.00890	.00170	.24170	.07120	.81550	.36000	2.21560
1.198	10.870	.96650	-.28840	-.00660	.00890	.00250	.24360	.07130	.92250	.42540	2.16840
1.198	13.130	1.10650	-.30060	-.01560	.00330	.00220	.24640	.07560	1.02310	.49390	2.07140
1.198	15.330	1.21060	-.30490	-.01770	.00310	.00150	.25170	.07710	1.10110	.56290	1.95590
1.198	17.530	1.31990	-.30850	-.02060	.00410	.00110	.25650	.08020	1.18130	.64220	1.83930
1.198	19.710	1.40440	-.30540	-.02270	.00400	.00130	.25640	.08160	1.23560	.71500	1.72790
1.198	21.740	1.47610	-.29590	-.02410	.00360	.00090	.25490	.08640	1.27640	.78440	1.62960
1.198	10.860	.99050	-.26920	-.01360	.00350	.00240	.24360	.07160	.92070	.42630	2.17560
GRADIENT		.06279	-.01353	-.00106	.00019	-.00010	.00169	.00014	.05826	.01220	.14336

RUN NO. 167/ 0 RVL = 7.22 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAS	CL	CD	L/D
1.945	-130	.14100	-.09360	-.00200	.00160	.00000	.16740	.03650	.14200	.16660	.65210
1.945	1.710	.22610	-.10930	-.00260	.00160	-.00020	.16930	.03640	.22090	.17600	1.25520
1.945	3.660	.31430	-.12470	-.00350	.00190	-.00010	.17040	.03390	.30210	.19120	1.57960
1.945	6.060	.42060	-.14590	-.00360	.00140	.00000	.17560	.03270	.39960	.21940	1.82130
1.945	8.230	.50630	-.16090	-.00490	.00140	.00000	.17590	.03190	.47790	.24690	1.93560
1.945	10.430	.60470	-.17740	-.00740	.00170	.00030	.17630	.03190	.56270	.26260	1.98930
1.945	12.630	.69710	-.19110	-.00840	.00170	.00010	.17600	.03300	.64170	.32430	1.97690
1.945	14.740	.78090	-.20170	-.00920	.00200	.00020	.17490	.03340	.71060	.36800	1.93100
1.945	17.010	.89370	-.21930	-.01110	.00220	.00040	.17910	.03470	.80220	.43270	1.85590
1.945	19.200	.99370	-.23710	-.01270	.00250	.00020	.18200	.03590	.88040	.49950	1.76250
1.945	21.300	1.10730	-.25510	-.01470	.00270	.00040	.18520	.03710	.96440	.57480	1.67750
1.945	10.400	.56840	-.17230	-.00760	.00200	.00000	.17200	.03210	.54760	.27540	1.98800
GRADIENT		.04136	-.00737	-.00036	.00007	-.00002	.00071	-.00063	.03821	.00586	.17342

DATE 26 SEP 73

TABULATED SOURCE DATA - MSFC TWT 574

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MSFC 574 (0A48) ORB 139

(087000) (17 SEP 73)

REFERENCE DATA

SREF = 2690.0000 96.47. SREF = 836.7000 IN.
 LREF = 474.8000 IN. YREF = .0000 IN.
 BREF = 936.7000 IN. ZREF = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = 15.000
 ALLCON = .000 BOFLAP = 15.750
 SPDRK = 999.990

RUN NO. 208/ 0 RV/L = 4.07 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	-500	.04110	-.06430	.00140	.00090	-.00010	.12210	.01940	.04810	.12170	.34630
2.990	1.470	.09870	-.07070	.00310	.00030	.00000	.12290	.01930	.09660	.12340	.76980
2.990	3.110	.16450	-.07770	-.00030	.00100	.00000	.12250	.01900	.15640	.13250	1.16810
2.990	5.360	.23360	-.08640	-.00210	.00100	-.00040	.12170	.01930	.22070	.14390	1.53390
2.990	7.690	.30350	-.09670	-.00250	.00090	-.00060	.12250	.01970	.29430	.16160	1.79910
2.990	9.740	.37960	-.10960	-.00290	.00090	-.00020	.12410	.01970	.35330	.18460	1.89230
2.990	11.840	.45640	-.12140	-.00440	.00170	-.00010	.12440	.01960	.42560	.21740	1.93510
2.990	13.870	.53700	-.13600	-.00500	.00170	.00000	.13060	.01970	.48990	.25560	1.91500
2.990	15.990	.62160	-.14970	-.00620	.00130	-.00030	.13140	.01940	.56130	.29780	1.68970
2.990	18.060	.70640	-.16430	-.00670	.00140	-.00010	.13470	.01960	.63160	.34900	1.61490
2.990	20.030	.78430	-.17770	-.00690	.00150	.00000	.13750	.01930	.69990	.39790	1.73360
2.990	9.750	.36250	-.10820	-.00300	.00100	.00000	.12410	.01960	.35670	.18710	1.90220
2.990	GRADIENT	.03075	-.00334	-.00049	.00003	.00002	.00010	.00005	.02951	.00265	.20639

RUN NO. 208/ 0 RV/L = 4.91 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.999	-510	.00330	-.05560	.00070	-.00010	.00010	.09330	.00570	.00410	.09330	.04450
4.999	1.420	.04680	-.05960	.00120	-.00030	.00010	.09140	.00560	.04460	.09260	.46170
4.999	3.450	.08760	-.06250	.00030	.00060	.00060	.09140	.00600	.09190	.09710	.84640
4.999	5.490	.13600	-.07030	-.00010	.00060	.00040	.09100	.00600	.14660	.10590	1.36870
4.999	7.560	.21440	-.07910	-.00120	.00030	.00050	.09200	.00600	.20040	.11930	1.68030
4.999	9.560	.28080	-.08970	-.00240	.00040	.00060	.09390	.00610	.26140	.13930	1.87670
4.999	11.620	.35160	-.10050	-.00100	.00030	.00100	.09660	.00610	.32500	.16540	1.96360
4.999	13.620	.42400	-.11310	-.00030	.00020	.00110	.10100	.00610	.38630	.19610	1.96000
4.999	15.710	.50700	-.12660	-.00320	.00030	.00130	.10390	.00610	.45990	.23730	1.93740
4.999	17.730	.59050	-.14020	-.00470	.00110	.00120	.10770	.00610	.52960	.26250	1.87470
4.999	19.680	.67250	-.15590	-.00630	.00080	.00120	.11240	.00610	.59310	.33230	1.79100
4.999	9.560	.26330	-.06970	-.00040	.00060	.00120	.09410	.00630	.26370	.13990	1.68430
4.999	GRADIENT	.02362	-.00174	-.00010	.00023	.00015	-.00046	.00006	.02216	.00097	.22776

DATE 28 SEP 73 TABULATED SOURCE DATA - NSFC TMT 574

(R07061) (17 SEP 73)

NSFC 574 (0A48) ORB 139

PARAMETRIC DATA

BETA = .000 ELEVTR = 15.000
 AIRCON = .000 BDFLAP = 15.750
 SPDRK = 999.990

REFERENCE DATA

REF = 2890.0000 98.77. XPRP = 636.7000 IN.
 LREF = 474.0000 IN. YPRP = .0000 IN.
 BREF = 996.7000 IN. ZPRP = .0000 IN.
 SCALE = .0040

RUN NO. 211/ 0 RV/L = 4.11 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CEL	CA	CAS	CL	CD	L/D
2.990	20.620	.79890	-.17170	-.01190	.00090	-.00090	.13590	.01950	.69420	.40690	1.70770
2.990	22.630	.66310	-.16620	-.01200	.00090	-.00040	.13940	.01960	.76140	.46850	1.62510
2.990	24.700	.97910	-.20320	-.00620	.00000	-.00030	.14260	.01940	.82620	.53710	1.53030
2.990	26.790	1.07400	-.21990	-.01490	.00000	-.00060	.14620	.01950	.89280	.61470	1.43240
2.990	28.880	1.17920	-.23510	-.01630	.00080	-.00090	.15010	.01950	.95640	.69920	1.36760
2.990	31.010	1.27750	-.25140	-.01700	.00060	-.00120	.15360	.01960	1.01570	.76990	1.29560
2.990	33.110	1.37970	-.26710	-.01780	.00060	-.00060	.15740	.02010	1.06960	.86560	1.20770
2.990	35.160	1.48290	-.28550	-.01970	.00130	-.00100	.16060	.02030	1.11950	.96560	1.13590
2.990	37.350	1.59610	-.30600	-.02100	.00120	-.00160	.16440	.02020	1.16940	1.06430	1.06430
2.990	39.410	1.72530	-.34790	-.02330	.00220	-.00170	.17030	.02060	1.22450	1.22720	.99780
2.990	41.430	1.85750	-.36190	-.02540	.00170	-.00030	.17360	.02130	1.27770	1.35940	.93990
2.990	43.030	1.88350	-.32230	-.01760	.00050	-.00130	.15320	.01990	1.08070	.79310	1.28700
2.990	45.000	.09033	-.00943	-.00066	.00029	-.00004	.00161	.00006	.02767	.04527	-.03723

RUN NO. 210/ 0 RV/L = 4.97 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CEL	CA	CAS	CL	CD	L/D
4.999	20.260	.66100	-.13600	-.00760	.00110	-.00100	.11490	.00560	.59900	.34360	1.74290
4.999	22.230	.76330	-.17190	-.00640	.00110	-.00110	.11950	.00560	.66130	.39950	1.65530
4.999	24.270	.86370	-.18620	-.01030	.00110	-.00060	.12540	.00560	.73560	.46940	1.56750
4.999	26.320	.96360	-.20490	-.01060	.00120	-.00060	.13030	.00570	.80590	.54450	1.46010
4.999	28.380	1.06290	-.22600	-.01260	.00060	-.00090	.13550	.00590	.87070	.62450	1.39420
4.999	30.460	1.16620	-.24110	-.01330	.00070	-.00060	.14150	.00590	.93510	.71420	1.30930
4.999	32.540	1.27350	-.25760	-.01560	.00110	-.00120	.14640	.00590	.99470	.80650	1.25020
4.999	34.580	1.37480	-.27250	-.01700	.00190	-.00160	.15190	.00600	1.04370	.90490	1.15560
4.999	36.660	1.48060	-.29050	-.01900	.00190	-.00140	.15590	.00590	1.09460	1.00910	1.08460
4.999	38.690	1.58240	-.30750	-.01620	.00190	-.00190	.16100	.00590	1.13420	1.11500	1.01720
4.999	40.590	1.68310	-.32460	-.01660	.00060	-.00170	.16530	.00560	1.16910	1.22200	.95670
4.999	42.480	1.71800	-.24090	-.01330	.00030	-.00090	.14100	.00590	.93650	.71560	1.31130
4.999	44.951	.04951	-.00619	-.00061	.00001	-.00003	.00250	.00001	.02847	.04334	-.03676

TABULATED SOURCE DATA - NSFC TWT 574

MSFC 574 (QA48) ORB 139

REFERENCE DATA

SPRY	=	2690.0000	24.FT.	108P	=	836.7000	IN.
LPZY	=	474.6000	IN.	Y48P	=	.0000	IN.
SPZY	=	936.7000	IN.	Z48P	=	.0000	IN.
SCALE	=					.0040	

PARAMETRIC DATA

BETA =	.000	ELEVTR =	-20.000
AILRON =	.000	BOFLAP =	.000
SPOROK =	999.990		

INTERVAL = -5.00 / 5.00

WCON	ALPHA	CM	CLM	CY	CYN	CSL	CA	CAB	CL	CD	L/D
.998	-.370	-.21910	.12770	.000370	.000081	.000290	.00310	.00010	-.21820	.00330	-2.35690
.998	1.370	-.12620	.12390	-.000390	.000080	.000210	.00110	.00290	-.12610	.07810	-1.64030
.998	3.320	-.00230	.00000	.00090	.00090	.00130	.07510	.03060	-.02730	.07330	-.37420
.998	5.810	.00020	-.11620	-.001700	.00070	.00070	.00670	.03100	.07490	.07340	.99360
.998	7.990	.10690	.10690	-.000970	.00150	.00090	.03730	.03130	.10690	.06390	2.87260
.998	9.790	.31360	.00390	-.004480	.00070	.00060	.03620	.03800	.30130	.11110	2.70990
.998	11.000	.41970	.09110	-.00670	.00050	-.00010	.03780	.03290	.30680	.14300	2.79790
.998	13.900	.51730	.09340	-.00930	.00030	.00470	.03590	.03360	.40660	.17990	2.75030
.998	16.070	.61760	.09790	-.00820	-.00100	.00440	.03610	.03790	.57790	.22900	2.56860
.998	18.160	.72700	.10190	-.00510	-.00170	-.00450	.03790	.04000	.67310	.29050	2.39980
.998	20.160	.81540	.10790	-.00730	-.00050	-.00590	.03790	.04220	.74340	.33150	2.22130
.998	9.800	.32150	.09370	-.00640	.00070	.00060	.03660	.03390	.30680	.11290	2.72660
GRANDTOT		.44737	-.00160	-.000081	-.00007	-.000025	-.00197	.00013	-.04863	-.07267	.53464

	COEFF. OF CORR.	TWO-TAIL	F	CORRELATION INTERVAL =	-5.00/	5.00
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WAGON	ALPHA	ON	CLM	CY	CYN	CSL	CA	CAS	CL	CD	L/D
.885	-.600	-.22120	.15820	-.00080	.00090	.02660	.10700	.03320	-.22000	.10930	-2.01170
.885	1.490	-.06970	.13780	-.00340	.00130	.00270	.10410	.03380	-.09820	.10160	-.90590
.885	3.700	.06850	.00480	-.00110	.00110	.00150	.09990	.03420	.06190	.10410	.59410
.885	5.880	.20470	.78560	-.00540	.00060	.00130	.08780	.03250	.19360	.11830	1.63640
.885	8.250	.32730	.04660	-.00060	.00060	.00200	.09650	.03390	.31030	.14340	2.16280
.885	10.210	.45790	.04860	-.01200	.00190	.00270	.10190	.03410	.43260	.18160	2.38210
.885	12.560	.56200	.03720	-.01140	.00100	.00430	.10040	.03560	.54520	.22260	2.44900
.885	14.350	.66700	.03030	-.00900	.00070	.00490	.09970	.03640	.64960	.27170	2.39040
.885	16.710	.80320	.02720	-.00690	-.00170	.00360	.10320	.04310	.73900	.33170	2.22750
.885	18.800	.88900	.04010	-.01400	.00010	-.00150	.10810	.04930	.78400	.36120	2.05670
.885	20.830	.92360	.06170	-.01200	-.00010	-.00180	.11140	.05730	.82370	.38270	1.90330
.885	20.280	.68250	.04950	-.01100	.00150	.00260	.10220	.03420	.43700	.18270	2.39140
.885	22.010	.46742	-.01161	-.00092	.00004	-.00026	-.10165	-.00023	.06561	-.00117	-.60498

REFERENCE DATA

SRCT = 2000.0000 90.00 FT. XPRP = 836.7000 IN.
LREF = 474.0000 IN. YPRP = .0000 IN.
SRCT = 936.7000 IN. ZPRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = -20.000
AILRON = .000 BOFLAP = .000
SPDRNK = 999.990

RUN NO. 203/ 0 RWL = 6.11 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
1.200	-4.40	-0.0240	.11470	.00410	-.00330	.00000	.19990	.06000	-.06000	.20000	-.40000
1.200	1.500	.05070	.00990	.00010	.00010	-.00040	.20170	.06190	.04490	.20310	.22120
1.200	3.910	.19000	.05910	.00010	.00010	-.00060	.20220	.06470	.17370	.21400	.01840
1.200	6.130	.31700	.09940	-.00210	.00020	-.00060	.20170	.06700	.29360	.23440	1.25240
1.200	8.340	.43690	.02180	-.00320	.00030	-.00060	.19940	.06950	.40300	.26090	1.55190
1.200	10.540	.56420	.00830	-.01050	.00020	.00000	.19630	.06970	.51840	.29620	1.75790
1.200	12.780	.69900	-.00610	-.01290	.00020	.00000	.19790	.07120	.62830	.34480	1.82190
1.200	14.970	.80920	-.02270	-.01480	.00010	.00000	.19370	.07270	.75170	.39630	1.84630
1.200	17.170	.91640	-.02970	-.01660	.00000	.00010	.19220	.07650	.81800	.45420	1.80260
1.200	19.330	1.01480	-.03580	-.01920	.00000	-.00010	.19010	.07940	.89420	.51570	1.75400
1.200	21.420	1.09370	-.04130	-.02130	.00000	-.00000	.18400	.08120	.95270	.57130	1.66660
1.200	10.550	.56630	-.02610	-.00960	.00070	.00070	.19000	.06920	.52030	.29640	1.74430
1.200	GRADIENT	.06231	-.01271	-.00091	.00009	-.00018	.00002	.00090	.05867	.00328	.27918

RUN NO. 166/ 0 RWL = 7.21 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
1.945	-4.40	-.03330	.03460	.00190	.00050	-.00060	.15310	.03340	-.03200	.13340	-.20870
1.945	1.500	.05320	.02020	.00040	.00070	-.00050	.15010	.03400	.05110	.15160	.35720
1.945	3.730	.14370	.00820	-.00120	.00110	-.00060	.14590	.03320	.13390	.15700	.08410
1.945	5.930	.24160	-.00680	-.00160	.00050	-.00040	.14640	.03300	.22540	.17060	1.32060
1.945	8.080	.32360	-.01630	-.00360	.00060	-.00060	.14040	.03260	.30060	.18460	1.82940
1.945	10.290	.41430	-.02680	-.00440	.00060	-.00040	.13990	.03290	.38260	.21170	1.90690
1.945	12.490	.50410	-.03510	-.00600	.00070	-.00030	.13690	.03250	.46260	.24270	1.90550
1.945	14.610	.59160	-.04000	-.00690	.00110	-.00040	.13240	.03250	.52940	.27480	1.92600
1.945	16.860	.68130	-.04690	-.00690	.00090	-.00040	.13160	.03240	.61370	.32360	1.89500
1.945	19.050	.77670	-.05440	-.00990	.00110	-.00040	.12950	.03290	.69370	.37660	1.84170
1.945	21.140	.87170	-.06120	-.00990	.00130	-.00070	.12670	.03870	.76720	.43270	1.77260
1.945	10.260	.40190	-.02560	-.00430	.00110	-.00070	.13540	.03330	.57130	.21480	1.81280
1.945	GRADIENT	.04204	-.00674	-.00074	.00014	-.00000	-.00171	-.00005	.03940	.00139	.23475

DATE 28 SEP 73

TABULATED SOURCE DATA - NSFC TWT 574

NSFC 574 (0448) ORB 139

(R07062) (17 SEP 73)

REFERENCE DATA

REF = 2890.0000 M.F.T. YMRP = 636.7000 IN.
 LREF = 474.9000 IN. YMRP = .0000 IN.
 BREF = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = -20.000
 AILRON = .000 BOFLAP = .000
 SPDRK = 999.999

RUN NO. 192/ 0 RV/L = 4.14 GRADIENT INTERVAL = -5.00/ 5.00

INCH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	-5.510	-0.0870	-0.00790	-0.00070	-0.00020	-0.00040	.11110	.01810	-.03170	.11140	-.28480
2.990	1.440	0.02260	-0.00940	-0.00190	-0.00030	-0.00030	.10990	.01830	-.02900	.11040	.16180
2.990	3.480	0.07960	-0.00970	-0.00100	.00010	-0.00030	.10720	.01850	.07290	.11180	.65210
2.990	5.520	0.14370	-0.01450	-0.00180	.00020	-0.00040	.10400	.01850	.13290	.11740	1.13220
2.990	7.620	0.20500	-0.01790	-0.00220	.00020	-0.00040	.10260	.01890	.18960	.12890	1.47040
2.990	9.710	0.27160	-0.02050	-0.00360	.00000	-0.00050	.10130	.01890	.25060	.14570	1.71960
2.990	11.800	0.33910	-0.02320	-0.00370	.00020	-0.00050	.09970	.01860	.31190	.16710	1.86330
2.990	13.870	0.40610	-0.02710	-0.00500	.00030	-0.00050	.09770	.01870	.37290	.19250	1.93680
2.990	15.950	0.46860	-0.03140	-0.00570	.00030	-0.00040	.09430	.01870	.43770	.22340	1.94200
2.990	18.030	0.52660	-0.03560	-0.00660	.00020	-0.00050	.09510	.01900	.50170	.26340	1.90490
2.990	19.990	0.63230	-0.04100	-0.00660	.00000	-0.00060	.09330	.01900	.56220	.30390	1.84980
2.990	GRADIENT	0.62814	-0.00045	-0.00007	.00006	.00002	-.00096	.00010	.02621	.00010	.23480

RUN NO. 193/ 0 RV/L = 4.97 GRADIENT INTERVAL = -5.00/ 5.00

INCH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.990	-5.510	-0.04160	-0.02260	.00140	-0.00040	-0.00080	.08560	.00320	-.04060	.08620	-.47360
4.990	1.410	0.00800	-0.02420	-0.00220	-0.00160	-0.00040	.08300	.00350	.00000	.08300	.00000
4.990	3.420	0.04480	-0.02310	-0.00300	-0.00030	-0.00050	.08060	.00360	.03990	.08310	.48040
4.990	5.450	0.08210	-0.02320	-0.00120	.00030	-0.00050	.07870	.00370	.08430	.08640	.97320
4.990	7.490	0.14220	-0.01960	-0.00160	.00040	-0.00050	.07670	.00360	.13100	.09460	1.36320
4.990	9.540	0.19420	-0.02260	-0.00260	.00030	-0.00040	.07370	.00360	.17890	.10690	1.67410
4.990	11.600	0.23790	-0.02480	-0.00250	.00000	-0.00050	.07450	.00350	.23710	.12470	1.90010
4.990	13.680	0.31690	-0.02820	-0.00370	.00030	.00040	.07450	.00360	.29050	.14700	1.97630
4.990	15.680	0.38550	-0.03170	-0.00430	-0.00030	-0.00020	.07420	.00360	.35110	.17560	1.99650
4.990	17.710	0.45460	-0.03180	-0.00430	.00010	-0.00030	.07340	.00390	.41010	.21010	1.93130
4.990	19.650	0.52590	-0.03460	-0.00500	.00000	-0.00050	.07620	.00390	.46960	.24870	1.88780
4.990	9.540	0.19690	-0.02330	-0.00200	.00020	-0.00040	.07370	.00370	.18360	.10770	1.70510
4.990	GRADIENT	0.62196	-0.00007	-.00111	.00003	.00002	-.00132	.00010	.02053	-.00076	.24272

DATE 28 SEP 73

TABULATED SOURCE DATA - MSFC TWT 574

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MSFC 574 (0448) ORB 139

(087063) (17 SEP 73)

REFERENCE DATA

9827 = 2890.0000 98.47. 100P = 838.7000 IN.
 100P = 474.8000 IN. 100P = .0000 IN.
 9827 = 936.7000 IN. 100P = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = -20.000
 AIRBORN = .000 BOFLAP = .000
 SPDRK = 999.990

RUN NO. 192/ 0 RV/L = 4.06 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CSL	CA	CAB	CL	CD	L/D
2.990	20.570	.63420	-.03710	-.01030	.00000	-.00070	.09310	.01860	.56100	.31010	1.80900
2.990	22.580	.71280	-.04230	-.00980	-.00020	-.00040	.09190	.01860	.62260	.35610	1.73880
2.990	24.640	.79360	-.04780	-.01150	-.00100	-.00040	.09130	.01380	.68340	.41400	1.63050
2.990	26.730	.87660	-.05190	-.01150	-.00080	-.00050	.09080	.01910	.74390	.47620	1.58190
2.990	28.880	.96610	-.05990	-.01400	-.00040	-.00100	.09030	.01860	.80290	.54490	1.47330
2.990	30.940	1.05480	-.06410	-.01320	-.00010	-.00130	.08950	.01860	.85970	.61910	1.38690
2.990	33.030	1.14810	-.07000	-.01360	-.00020	-.00130	.08780	.01840	.91290	.69840	1.30700
2.990	35.090	1.23480	-.07500	-.01750	.00020	-.00160	.08720	.01860	.96020	.78120	1.22900
2.990	37.240	1.32700	-.08140	-.01810	.00010	-.00190	.08520	.01880	1.00480	.87100	1.15350
2.990	39.320	1.41880	-.08640	-.02060	.00130	-.00240	.08430	.01870	1.04410	.96420	1.08280
2.990	41.510	1.50880	-.09600	-.02120	.00110	-.00210	.08280	.01850	1.07860	1.05830	1.01910
2.990	43.800	1.59690	-.06440	-.01560	.00000	-.00150	.08900	.01860	.96410	.62190	1.36930
2.990	46.224	.04224	-.00277	-.00057	.00006	-.00010	-.00047	-.00001	.02520	.03619	-.03679

GRADIENT

RUN NO. 194/ 0 RV/L = 4.69 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CSL	CA	CAB	CL	CD	L/D
4.999	20.530	.53080	-.03290	-.00910	.00010	-.00110	.07770	.00410	.47110	.25650	1.83640
4.999	22.530	.60800	-.03550	-.00790	.00010	-.00060	.07840	.00420	.53140	.30170	1.76120
4.999	24.230	.68610	-.03900	-.00950	-.00040	-.00060	.07880	.00410	.59310	.35370	1.67670
4.999	26.290	.77000	-.04260	-.01050	-.00030	-.00070	.07910	.00410	.65520	.41200	1.59030
4.999	28.340	.85640	-.04760	-.01130	-.00080	-.00080	.07980	.00420	.71580	.47690	1.50100
4.999	30.420	.94690	-.05210	-.01320	-.00060	-.00080	.08070	.00430	.77560	.54910	1.41240
4.999	32.480	1.03890	-.05610	-.01430	-.00020	-.00110	.08170	.00430	.83220	.62670	1.32780
4.999	34.510	1.13040	-.06350	-.01670	-.00030	-.00140	.08130	.00420	.88530	.71760	1.25110
4.999	36.610	1.22430	-.06910	-.01720	-.00030	-.00180	.08130	.00410	.93410	.79550	1.17420
4.999	38.650	1.31580	-.07320	-.01760	.00030	-.00190	.08220	.00390	.97620	.86600	1.10170
4.999	40.800	1.40240	-.08090	-.01790	-.00070	-.00150	.08160	.00370	1.01140	.97490	1.03740
4.999	43.820	.35220	-.05200	-.01330	-.00080	-.00080	.08050	.00410	.78020	.55170	1.41420
4.999	46.312	.04312	-.00235	-.00054	-.00001	-.00005	.00022	-.00001	.02699	.03549	-.03991

GRADIENT

DATE 28 SEP 73

TABULATED SOURCE DATA - NSFC TWT 574

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(R87064) (17 SEP 73)

NSFC 574(0A48) ORB 139

REFERENCE DATA

REF = 2000.0000 Sq.Ft. XCRP = 838.7000 IN.
 LREF = 474.8000 IN. YMRP = .0000 IN.
 BREF = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = -40.000
 AIRLON = .000 BOFLAP = -14.250
 SPDRBK = 999.990

RUN NO. 184/ 0 RV/L = 7.22 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
1.946	-1.570	-1.1020	.07390	.00180	.00020	-.00070	.18710	.03370	-.10830	.18820	-.57550
1.946	1.490	-.01570	.05700	.00090	.00070	-.00070	.18000	.03450	-.02040	.17950	-.11380
1.946	3.650	.06150	.03920	-.00070	.00100	-.00070	.17130	.03540	.07040	.17820	.39970
1.946	5.850	.17510	.02460	-.00280	.00100	-.00090	.16440	.03360	.15740	.18140	.86790
1.946	8.050	.27430	.01290	-.00300	.00080	-.00080	.16200	.03500	.14890	.19870	1.25260
1.946	10.220	.35770	.00320	-.00470	.00060	-.00060	.15600	.03650	.32360	.21690	1.49270
1.946	12.410	.44170	-.00100	-.00530	.00090	-.00050	.15690	.03650	.39770	.24820	1.60190
1.946	14.590	.54170	-.00680	-.00640	.00080	-.00050	.15390	.03650	.48550	.28540	1.70090
1.946	16.830	.63960	-.01470	-.00940	.00150	-.00030	.15100	.03940	.56860	.32980	1.72380
1.946	19.000	.75070	-.02110	-.01040	.00120	-.00020	.14810	.04080	.64270	.37800	1.70010
1.946	21.100	.82230	-.02700	-.01200	.00200	-.00060	.14410	.04120	.71530	.43050	1.66160
1.946	23.210	.85590	-.03350	-.01440	.00110	-.00100	.15410	.03530	.82280	.21480	1.50260
1.946	25.420	.84542	-.00622	-.00059	.00019	-.00100	-.00375	.00040	.04234	-.00283	-.23114

RUN NO. 219/ 0 RV/L = 4.09 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	-1.580	-.07650	.01650	.00190	-.00010	-.00040	.12590	.01740	-.07550	.12670	-.59420
2.990	1.410	-.01870	.01270	.00080	-.00040	-.00040	.12330	.01750	-.02170	.12280	-.17720
2.990	3.480	.04590	.00900	-.00040	.00030	-.00040	.11880	.01750	.03870	.12140	.31690
2.990	5.550	.11010	.00420	-.00040	.00010	-.00060	.11470	.01800	.09650	.12490	.78880
2.990	7.620	.17330	.00000	-.00170	.00030	-.00030	.11280	.01830	.15680	.13480	1.16360
2.990	9.690	.23940	-.00300	-.00260	.00050	-.00070	.11040	.01850	.21740	.14920	1.45710
2.990	11.770	.31100	-.00390	-.00280	.00050	-.00050	.10830	.01850	.28240	.16950	1.66610
2.990	13.800	.37900	-.00770	-.00370	.00070	-.00060	.10620	.01890	.34270	.19360	1.77020
2.990	15.940	.45350	-.01050	-.00440	.00070	-.00050	.10310	.01880	.40720	.22570	1.80410
2.990	18.000	.52870	-.01390	-.00510	.00060	-.00030	.10300	.01880	.47090	.26180	1.80000
2.990	19.960	.60120	-.01770	-.00690	.00090	-.00090	.10120	.01870	.53060	.30040	1.76610
2.990	21.960	.64530	-.02190	-.00890	.00070	-.00060	.11020	.01850	.22320	.15000	1.48770
2.990	23.960	.63045	-.00187	-.00057	.00010	-.00000	-.00177	.00003	.02837	-.00131	-.22724

GRADIENT

DATE 28 SEP 73

TABULATED SOURCE DATA - NSFC TWT 574

(R07064) (17 SEP 73)

NSFC 574 (0A48) ORB 139

PARAMETRIC DATA

BETA = .000 ELEVTR = -40.000
 ALLRON = .000 BDFLAP = -14.250
 SFCBRK = 999.990

REFERENCE DATA

SRC = 2000.0000 50.00 FT. XMRP = 036.7000 IN.
 LREF = 474.0000 IN. YMRP = .0000 IN.
 BREF = 036.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

RUN NO. 218/ 0 RUN/L = 4.91 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.929	-1.530	-1.07020	-1.00530	.00260	.00030	-1.00030	.10060	.00360	-.06920	.10140	-.68280
4.929	1.400	-1.02560	-1.00670	.00230	-.00060	-1.00040	.09500	.00360	-.02790	.09440	-.29590
4.929	3.410	.02160	-1.00900	.00140	.00060	-1.00040	.09130	.00390	.01630	.09250	.17710
4.929	5.440	.07440	-1.01640	-.00090	.00030	-1.00030	.08690	.00400	.06580	.09360	.70380
4.929	7.460	.12700	-1.01280	.00000	.00060	-1.00060	.08380	.00410	.11500	.09970	1.15380
4.929	9.540	.18210	-1.01450	.00230	.00000	-1.00000	.08150	.00410	.16010	.11060	1.50150
4.929	11.600	.24220	-1.01570	-.00220	.00060	-1.00010	.07960	.00430	.22130	.12770	1.74660
4.929	13.590	.30500	-1.01960	-.00270	.00100	-1.00040	.07960	.00440	.27770	.14930	1.85930
4.929	15.680	.37310	-1.01820	-.00210	.00070	-1.00040	.07960	.00450	.33760	.17750	1.90170
4.929	17.700	.44290	-1.02010	-.00340	.00070	-1.00070	.08110	.00440	.39760	.21100	1.88380
4.929	19.850	.51120	-1.02120	-.00340	.00040	-1.00040	.08150	.00430	.45450	.24740	1.83720
4.929	9.540	.18410	-1.01340	-.00110	.00040	-1.00040	.08150	.00430	.16010	.11090	1.51470
4.929	.02335	.00093	-.00093	-.00031	.00008	.00008	-.00241	.00008	.02170	-.00225	.21832

GRADIENT

PARAMETRIC DATA

BETA = .000 ELEVTR = -40.000
ATLRON = .000 BDFLAP = -14.250
SPDBRK = 999.990

REFERENCE DATA

SREF = 2690.0000 82. FT. XREF = 838.7000 IN.
LREF = 474.8000 IN. YREF = .0000 IN.
BREF = 936.7000 IN. ZREF = .0000 IN.
SCALE = .0040

RUN NO. 216/ 0 RN/L = 4.08 GRADIENT INTERVAL = -5.00/ 5.00

MOON	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	20.580	.60700	-.01750	-.01030	.00000	-.00070	.01040	.01900	-.00070	.30620	1.72840
2.990	22.580	.68150	-.02080	-.01050	.00020	-.00070	.01020	.01910	.59080	.33410	1.66840
2.990	24.630	.76150	-.02360	-.01130	-.00040	-.00070	.09960	.01930	.65070	.40790	1.59500
2.990	26.710	.84240	-.02710	-.01250	-.00030	-.00090	.09810	.01920	.70830	.46640	1.51850
2.990	28.810	.93110	-.03030	-.01380	.00010	-.00120	.09800	.01900	.76860	.53470	1.43730
2.990	30.920	1.01800	-.03370	-.01470	.00060	-.00140	.09720	.01900	.82330	.60660	1.35710
2.990	33.020	1.10470	-.03780	-.01600	.00020	-.00140	.09550	.01900	.87420	.68210	1.28160
2.990	35.070	1.19230	-.04010	-.01690	.00100	-.00170	.09510	.01890	.92110	.76300	1.20720
2.990	37.230	1.28390	-.04460	-.01830	.00060	-.00200	.09280	.01870	.96600	.85060	1.13540
2.990	39.300	1.37070	-.04720	-.01950	.00150	-.00260	.09200	.01850	1.00230	.93940	1.06690
2.990	41.270	1.45500	-.05210	-.02080	.00160	-.00260	.09080	.01830	1.03360	1.02810	1.00330
2.990	50.950	1.04400	-.03640	-.01480	.00040	-.00150	.09730	.01890	.84530	.62040	1.56240
GRADIENT		.04117	-.00164	-.00053	.00008	-.00010	-.00050	-.00004	.02455	.03494	-.03568

RUN NO. 217/ 0 RN/L = 4.91 GRADIENT INTERVAL = -5.00/ 5.00

MOON	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.959	20.250	.51800	-.02190	-.00750	.00120	-.00120	.08220	.00410	.45760	.25630	1.78490
4.959	22.200	.58920	-.02240	-.00760	.00090	-.00140	.08260	.00410	.51430	.29920	1.71870
4.959	24.250	.66580	-.02630	-.00840	.00030	-.00150	.08320	.00400	.57300	.34920	1.64080
4.959	26.280	.74820	-.02840	-.00940	.00060	-.00160	.08420	.00400	.63350	.40690	1.55680
4.959	28.340	.83420	-.02790	-.00970	.00040	-.00150	.08560	.00420	.69350	.47140	1.47100
4.959	30.410	.92030	-.03120	-.01210	.00020	-.00180	.08590	.00440	.75010	.54010	1.38880
4.959	32.470	1.00930	-.03290	-.01380	.00060	-.00200	.08790	.00430	.80430	.61610	1.30340
4.959	34.490	1.09670	-.03520	-.01550	.00090	-.00220	.08690	.00430	.85470	.69270	1.23370
4.959	36.500	1.18750	-.04040	-.01720	.00110	-.00260	.08710	.00410	.90130	.77810	1.15820
4.959	38.640	1.27760	-.04220	-.01560	.00100	-.00250	.08860	.00410	.94250	.86710	1.08690
4.959	40.590	1.36050	-.04590	-.01590	.00070	-.00210	.08910	.00400	.97500	.95300	1.02300
4.959	50.400	.92400	-.03020	-.01220	.00000	-.00170	.08590	.00430	.75320	.54190	1.56980
GRADIENT		.04175	-.00117	-.00052	.00001	-.00006	.00035	.00000	.02592	.03445	-.03617

(1807066) (17 SEP 73)

MSFC 574 (0448) ORB 139 W/ALT NOSE

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 AIRCPL = .000 ROTLAP = .000
 SPDSBK = 999.990

REFERENCE DATA

SRCP = 2890.0000 58.47. XMRP = 936.7000 IN.
 LRCP = 474.0000 IN. YMRP = .0000 IN.
 BRCP = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

RUN NO. Q/D RVL = 7.12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
1.946	-3.70	.04650	-.00230	.00010	.00100	-.00010	.13610	.03150	.04740	.13580	.34910
1.946	1.660	.13030	-.01540	-.00010	.00120	-.00050	.13560	.03120	.12640	.13940	.90730
1.946	3.840	.22430	-.00240	-.00050	.00150	-.00060	.13620	.03120	.21450	.13300	1.40230
1.946	6.010	.31370	-.04300	-.00340	.00150	-.00060	.13620	.03110	.29750	.17010	1.74870
1.946	8.200	.40630	-.03450	-.00420	.00160	-.00060	.13640	.03160	.38240	.19480	1.96280
1.946	10.410	.49730	-.06450	-.00540	.00160	-.00050	.13310	.03300	.46450	.22410	2.07270
1.946	12.600	.56190	-.07660	-.00650	.00160	-.00050	.13100	.03370	.53890	.25890	2.19760
1.946	14.720	.60250	-.08510	-.00980	.00180	-.00070	.13160	.03430	.60730	.29510	2.30790
1.946	16.960	.70650	-.09370	-.01080	.00170	-.00070	.13040	.03370	.77450	.34990	1.98530
1.946	19.190	.86580	-.10760	-.01150	.00190	-.00090	.13060	.03460	.85080	.40770	1.89930
1.946	21.270	.96370	-.10760	-.00600	.00170	-.00070	.13330	.03110	.45650	.21910	1.80440
1.946	10.360	.48840	-.08270	-.00600	.00170	-.00070	.13330	.03110	.45650	.21910	2.06220
1.946	GRADIENT	.04224	-.00656	-.00039	.00012	-.00012	.00051	-.00007	.03970	.07411	.24998

RUN NO. Q/D RVL = 4.06 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	-4.80	.00590	-.00850	.00080	-.00020	-.00010	.10360	.01740	.00680	.10370	.06580
2.990	1.480	.02970	-.00990	.00090	.00040	.00010	.10350	.01790	.03690	.10500	.54240
2.990	3.550	.12310	-.01570	.00060	.00050	.00000	.10070	.01810	.11660	.10610	1.07630
2.990	5.990	.18320	-.01660	.00100	.00050	.00000	.09840	.01830	.17270	.11620	1.48620
2.990	7.630	.24390	-.02150	.00220	.00050	-.00010	.09740	.01880	.22860	.12910	1.77200
2.990	9.780	.32000	-.02570	.00490	.00050	-.00010	.09710	.01900	.29890	.15000	1.99250
2.990	11.840	.36330	-.02960	.00530	.00060	.00010	.09640	.01900	.39550	.17310	2.03240
2.990	13.890	.45320	-.03310	.00430	.00110	-.00020	.09470	.01870	.47130	.20130	2.07190
2.990	15.990	.52860	-.03930	.00550	.00110	-.00010	.09470	.01830	.46220	.23690	2.03570
2.990	18.080	.60640	-.04330	.00610	.00110	-.00020	.09490	.01860	.54710	.27620	1.96620
2.990	20.030	.68330	-.05320	.00700	.00100	-.00020	.09450	.01860	.61950	.32290	1.86760
2.990	9.730	.31630	-.02480	.00240	.00060	-.00010	.09740	.01900	.29320	.14980	1.97260
2.990	GRADIENT	.02902	-.00104	-.00035	.00017	.00002	-.00077	.00017	.02719	.00109	.25074

DATE 28 SEP 73

TABULATED SOURCE DATA - MSFC TWT 574
MSFC 574 (0448) ORD 139 W/ALT NOSE

(187086) (17 SEP 73)

REFERENCE DATA

SREF = 2890.0000 W/FT. XREF = 838.7000 IN.
LREF = 474.0000 IN. YREF = .0000 IN.
BREF = 936.7000 IN. ZREF = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
ALIGNON = .000 BOFLAP = .000
SPDRK = 999.999

RUN NO. 0/0 RV/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.999	-1.490	-0.01970	-0.01940	.00000	-.00030	-.00030	.07670	.00390	-.01900	.07690	-.19120
4.999	1.430	.02950	-.01770	.00130	.00020	-.00020	.07740	.00390	.02350	.07600	.30190
4.999	3.440	.06560	-.01630	.00110	.00020	.00060	.07670	.00420	.06090	.06050	.75690
4.999	5.470	.11560	-.01440	.00060	.00000	.00070	.07530	.00430	.10810	.06600	1.23720
4.999	7.510	.17040	-.01700	-.00160	-.00100	.00100	.07470	.00450	.19920	.09630	1.63260
4.999	9.590	.22540	-.01790	-.00140	-.00110	.00090	.07430	.00440	.20990	.11070	1.89950
4.999	11.600	.28610	-.02030	-.00190	-.00070	.00200	.07460	.00440	.26930	.13050	2.03250
4.999	13.620	.35210	-.02230	-.00160	-.00040	.00130	.07510	.00460	.32450	.15600	2.06010
4.999	15.710	.42390	-.02690	-.00250	-.00100	.00130	.07650	.00460	.38750	.18840	2.03520
4.999	17.730	.49390	-.03140	-.00520	-.00030	.00100	.07790	.00450	.44620	.22450	1.96700
4.999	19.680	.56740	-.03490	-.00520	.00000	.00110	.07970	.00450	.50740	.26620	1.90630
4.999	9.570	.23040	-.01700	.00120	-.00030	.00100	.07470	.00440	.21480	.11200	1.91760
GRADIENT		.02068	.00079	.00007	.00013	.00026	-.00051	.00006	.01931	.00041	.24103

DATE 20 SEP 73

TABULATED SOURCE DATA - NSFC TWT 574

NSFC 574 (0448) CRB 139 W/ALT NOSE

(287046) (08 SEP 73)

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 ALURON = .000 BDFLAP = .000
 9-DBRX = 999.999

REFERENCE DATA

REF = 2090.0000 24.77. 100P = 836.7000 IN.
 LREF = 474.8000 IN. 100P = .0000 IN.
 REF = 936.7000 IN. 100P = .0000 IN.
 SCALE = .0040

RUN NO. 0/ 0 R/V/L = 4.68 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CEL	CL
.992	-4.40	.08120	.02750	.00240	.00090	.00230	.02170
.992	1.590	.11340	.02290	-.00230	.00170	.00260	.11360
.992	3.620	.22390	.01760	-.00920	.00180	.00240	.21970
.992	5.720	.33290	.01010	-.01080	.00230	.00210	.32660
.992	7.820	.44590	.00360	-.01400	.00360	.00290	.43660
.992	9.910	.53160	-.00900	-.01360	.00270	.00240	.51570
.992	12.000	.63820	-.01070	-.01510	.00270	.00050	.61460
.992	14.120	.75440	-.01200	-.01990	.00260	.00960	.72070
.992	16.230	.86000	-.01200	-.01260	.00160	.00440	.83310
.992	18.320	1.00120	-.01500	-.01000	.00100	-.00210	.95720
.992	20.310	1.09460	-.01340	-.01120	.00180	-.00510	1.01160
.992	9.910	.53530	-.00370	-.01420	.00240	.00240	.51860
.992	GRADIENT	.04964	-.00244	-.00266	.00022	.00002	.04878

RUN NO. 0/ 0 R/V/L = 5.91 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CEL	CL
.901	-3.70	.03800	.02630	-.00060	.00070	-.00030	.03890
.901	1.690	.13270	.01730	-.00190	.00100	-.00060	.15040
.901	3.830	.26500	.00790	-.00920	.00240	.00070	.29620
.901	5.960	.36220	-.00390	-.01060	.00250	-.00090	.39190
.901	8.110	.45360	-.01030	-.01160	.00300	.00040	.43740
.901	10.290	.56920	-.02530	-.01330	.00250	.00230	.54490
.901	12.460	.70230	-.04600	-.01710	.00340	.00910	.66640
.901	14.660	.83450	-.05970	-.01520	.00270	.00350	.78390
.901	16.670	.94780	-.06310	-.01190	.00120	.00360	.87890
.901	19.010	1.04320	-.06190	-.01660	.00290	-.00060	.93190
.901	20.980	1.07560	-.03620	-.01330	.00240	-.00060	.96320
.901	10.290	.57230	-.02710	-.01320	.00260	.00190	.54600
.901	GRADIENT	.05404	-.00485	-.00206	.00041	.00024	.05254

DATE 28 SEP 73

TABULATED SOURCE DATA - NSFC TWT 574

(287066) (08 SEP 73)

NSFC 574(0448) ORB 139 W/ALT NOSE

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 ATLON = .000 BOPLAP = .000
 SPOBRK = 999.990

REFERENCE DATA

SRZF = 2890.0000 28.17. XRP = 838.7000 IN.
 LRZF = 474.8000 IN. YRP = .0000 IN.
 BRZF = 938.7000 IN. ZRP = .0000 IN.
 SCALE = .0040

RUN NO. 01 0 RNL = 6.23 GRADIENT INTERVAL = -3.00/ 5.00

WACH	ALPHA	CN	CLM	CY	CYN	CEL	CL
1.200	-1.250	.11530	.00450	.00190	.00110	-.00010	.11600
1.200	1.860	.24100	-.02070	-.00070	.00120	-.00120	.23520
1.200	4.090	.36470	-.04190	-.00200	.00140	-.00150	.35140
1.200	6.250	.47760	-.05590	-.00520	.00160	.00000	.45560
1.200	8.440	.58780	-.06750	-.00810	.00230	.00120	.55560
1.200	10.700	.73160	-.09350	-.01070	.00260	.00180	.69440
1.200	12.920	.86037	-.11190	-.01270	.00320	.00130	.79930
1.200	15.130	.97270	-.12240	-.01270	.00300	.00060	.89300
1.200	17.340	1.06150	-.13170	-.01660	.00350	.00020	.97970
1.200	19.500	1.17170	-.12960	-.02420	.00620	.00190	1.04670
1.200	21.580	1.26620	-.13340	-.02000	.00430	.00120	1.11320
1.200	10.700	.73250	-.09250	-.01050	.00250	.00190	.69740
1.200	GRADIENT	.05926	-.01063	-.00082	.00007	-.00028	.05496

HSFC 574(0448) CRB 139 W/ALT NOSE

(RST007) (17 SEP 73)

REFERENCE DATA

REF = 2000.0000 20.0 FT. XREF = 836.7000 IN.
 LREF = 474.0000 IN. YREF = .0000 IN.
 ZREF = 906.7000 IN. ZREF = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 AILRON = .000 BOFLAP = .000
 SPODRK = 999.990

RUN NO. Q/D 0 RV/L = 4.09 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLN	CY	CYN	CEL	CA	CAS	CL	CD	L/D
2.990	20.600	.60370	-.05240	-.01080	.00020	-.00050	.09370	.01870	.60990	.33150	1.63690
2.990	22.600	.70450	-.06110	-.01160	.00030	-.00070	.09350	.01870	.67070	.38500	1.75130
2.990	24.710	.83370	-.07070	-.01280	-.00010	-.00060	.09610	.01850	.73540	.44450	1.85540
2.990	26.800	.94490	-.07980	-.01360	-.00020	-.00090	.09710	.01860	.79990	.51290	1.93920
2.990	28.870	1.03010	-.08010	-.01470	.00030	-.00120	.09760	.01870	.84860	.58740	1.46840
2.990	30.890	1.13410	-.08200	-.01570	.00030	-.00130	.09860	.01890	.92140	.66860	1.37600
2.990	32.930	1.23500	-.11190	-.01640	.00120	-.00130	.09960	.01890	.97710	.75700	1.29070
2.990	35.180	1.32540	-.12290	-.01700	.00050	-.00130	.10050	.01910	1.02590	.84590	1.21290
2.990	37.300	1.48450	-.13390	-.01760	.00120	-.00160	.10110	.01910	1.07170	.94360	1.13550
2.990	39.360	1.62220	-.14790	-.01940	.00140	-.00180	.10120	.01930	1.11230	1.04410	1.06530
2.990	41.350	1.61760	-.16030	-.02010	.00160	-.00140	.10120	.01930	1.14730	1.14480	1.00210
2.990	43.000	1.14080	-.10250	-.01540	.00040	-.00140	.09960	.01900	.98710	.67210	1.37930
2.990	GRADIENT	.04506	-.00516	-.00044	.00006	-.00005	.00032	.00304	.02630	.03942	-.04075

RUN NO. Q/D 0 RV/L = 4.91 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLN	CY	CYN	CEL	CA	CAS	CL	CD	L/D
4.999	20.280	.57670	-.04140	-.00660	.00030	-.00130	.08070	.00400	.51300	.27540	1.88230
4.999	22.250	.65990	-.04790	-.00800	.00040	-.00120	.08220	.00410	.57480	.32350	1.77460
4.999	24.280	.70680	-.05660	-.00900	.00060	-.00140	.08330	.00420	.63930	.36000	1.68290
4.999	26.310	.82710	-.06500	-.01060	.00030	-.00160	.08420	.00410	.70400	.44220	1.59220
4.999	28.370	.92190	-.07350	-.01130	.00100	-.00160	.08700	.00410	.76960	.51470	1.49560
4.999	30.450	1.02250	-.08600	-.01360	.00120	-.00210	.08870	.00410	.83640	.59470	1.40630
4.999	32.530	1.12100	-.09200	-.01350	.00110	-.00200	.09090	.00430	.89610	.67950	1.31870
4.999	34.590	1.21790	-.10560	-.01460	.00140	-.00230	.09300	.00430	.95050	.76700	1.23910
4.999	36.630	1.31510	-.11490	-.01640	.00150	-.00250	.09360	.00430	.99910	.86120	1.16130
4.999	38.700	1.41210	-.12700	-.01750	.00210	-.00260	.09550	.00430	1.04220	.95760	1.08620
4.999	40.640	1.50570	-.13760	-.01730	.00150	-.00270	.09640	.00430	1.07970	1.05390	1.02440
4.999	42.450	1.02360	-.08400	-.01290	.00140	-.00210	.09950	.00430	.83720	.59620	1.40420
4.999	GRADIENT	.04606	-.00476	-.00051	.00006	-.00006	.00062	.00001	.02640	.03632	-.04161

(06 SEP 73) (L060492)

PARAMETRIC DATA

BETA	=	.000	ELEVTR	=	.000
AILRON	=	.000	SOFLAP	=	.000
SPDRNK	=	999.990			

REFERENCE DATA

1000	=	280.0000	IN.
1000	=	474.8000	IN.
1000	=	936.7000	IN.
SCALE	=	.0040	

CONFIDENTIAL - 9.000 100.000 5.000

WAVELENGTH	ALPHA	OH	CLM	CV	CYN	CSL	CL
.997	20.910	1.09780	-.01300	-.01680	.00000	-.00490	1.00990
.997	22.670	1.14730	.00020	-.02200	.00330	-.00390	1.00900
.997	24.860	1.12920	.03600	-.01930	.00460	-.00750	1.00070
.997	26.830	1.05340	.05320	-.02940	.00360	-.00140	.90990
.997	29.670	1.09710	.06270	-.02570	.00170	-.00170	.92780
.997	30.930	1.17120	.03670	-.07610	.00040	-.00190	.96990
.997	33.000	1.25510	.03360	-.02460	.00040	-.00250	1.01630
.997	35.080	1.33690	.04660	-.02000	.00010	-.00460	1.06110
.997	37.170	1.41470	.03620	-.02140	.00140	-.00310	1.09230
.997	39.220	1.49560	.04360	-.00040	.00270	-.01010	1.11670
.997	41.210	1.55440	.05630	.01200	-.00750	-.01190	1.13620
.997	30.970	1.17360	.06030	-.02060	.00160	-.00210	.97140
GRADIENT		.02341	.00215	.00109	-.00040	-.00024	.00732

(R07068) (17 SEP 73)

TABULATED SOURCE DATA - NSPC TWT 574

NSPC 574 (0448) CRB 139 W/ALT NOSE

DATE 26 SEP 73

REFERENCE DATA

SREF = 2680.0000 58. FT. 1000' = 636.7000 IN.
 LREF = 474.8000 IN. 1000' = .0000 IN.
 SREF = 506.7000 IN. 1000' = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

ALPHA = .000 ELEVTR = .000
 AILRON = .000 BOPLAP = .000
 SPDRK = 999.990

RUN NO. 174/ 0 RAVL = 7.06 GRADIENT INTERVAL = -5.00/ 5.00

NSPC	BETA	CN	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
1.934	-26.348	.08480	-.01410	.19720	-.01460	.01000	.13490	.03610	.05890	.13430	.41310
1.934	-6.340	.02820	-.00820	.15300	-.01130	.00790	.13490	.03420	.03340	.13440	.36780
1.934	-6.280	.05480	-.00750	.11260	-.00760	.00560	.13940	.03330	.03370	.13690	.40120
1.934	-4.180	.05350	-.00570	.07310	-.00460	.00340	.14030	.03300	.03470	.13960	.39180
1.934	-2.100	.05170	-.00410	.03460	-.00180	.00140	.14030	.03250	.03380	.13960	.36030
1.934	.000	.05000	-.00340	-.00350	.00730	.00060	.13960	.03190	.03340	.13900	.36430
1.934	2.100	.04870	-.00290	-.04130	.00360	-.00060	.13790	.03290	.03120	.13740	.37230
1.934	4.130	.04680	-.00230	-.07980	.00680	-.00470	.13660	.03260	.04630	.13610	.34960
1.934	6.280	.04460	-.00160	-.12270	.00970	-.00680	.14010	.03410	.04350	.13690	.32790
1.934	8.390	.04480	-.00070	-.16630	.01300	-.00910	.13940	.03610	.04190	.13620	.30340
1.934	10.360	.04040	-.00000	-.21110	.01640	-.01110	.13660	.03700	.03090	.13730	.27130
1.934	.000	.04090	-.00036	-.00690	.00120	-.00090	.13760	.03210	.03090	-.00028	-.00436
	GRADIENT	-.00071	.00036	-.01822	.00135	-.00097	-.00028	.00020	-.00071	-.00028	

RUN NO. 220/ 0 RAVL = 4.16 GRADIENT INTERVAL = -5.00/ 5.00

NSPC	BETA	CN	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
2.990	-10.470	.00880	-.01650	.16540	-.01090	.00620	.10590	.01930	.00810	.10360	.07660
2.990	-6.510	.00670	-.01630	.15150	-.01010	.00730	.10700	.01900	.00800	.10490	.07690
2.990	-6.450	.00470	-.01410	.11490	-.00820	.00570	.10390	.01830	.00600	.10360	.05620
2.990	-4.480	.00200	-.01090	.06390	-.00590	.00410	.10360	.01760	.00330	.10370	.03250
2.990	-2.400	.00140	-.00840	.04490	-.00370	.00240	.10370	.01760	.00270	.10370	.02620
2.990	.340	.00050	-.00790	.00620	-.00090	.00030	.10360	.01760	.00160	.10360	.01770
2.990	1.690	.00160	-.00710	.00720	.00310	-.00210	.10410	.01760	-.00030	.10410	-.00310
2.990	3.680	.00330	-.00640	.06230	.00500	-.00360	.10330	.01750	-.00200	.10340	-.01960
2.990	5.760	.00250	-.01060	.09750	.00760	-.00560	.10390	.01790	-.00100	.10390	-.01010
2.990	7.810	.00350	-.01350	.13480	.00990	-.00720	.10400	.01820	-.00220	.10400	-.02160
2.990	9.750	.00370	-.01560	.16960	.01140	-.00830	.10430	.01820	-.00440	.10430	-.04210
2.990	.340	.00270	-.00760	.00660	-.00090	.00030	.10360	.01760	.00060	.10360	.00770
2.990	GRADIENT	-.00068	.00027	-.01796	.00140	-.00100	-.00030	-.00003	-.00068	-.00001	-.00667

DATE 28 SEP 73

TABLED SOURCE DATA - MSFC TWT 574

MSFC 574 (0448) ORS 139 W/ALT NOSE

PARAMETRIC DATA

ALPHA = .000 ELEVTR = .000
 AIRLON = .000 BOFLAP = .000
 SPOBRK = 999.990

REFERENCE DATA

SRCT = 2880.0000 88.47. 198P = 836.7000 IN.
 LREF = 474.8000 IN. 198P = .0000 IN.
 SRCT = 936.7000 IN. 298P = .0000 IN.
 SCALE = .0040

RUN NO. 291/ 0 RV/L = 5.04 GRADIENT INTERVAL = -5.00/ 5.00

WICH	BETA	CH	CLH	CY	CYN	CEL	CA	CAB	CL	CD	L/D
4.999	-10.370	-0.0640	-0.01450	.15830	-.00810	.00630	.08710	.00460	-.01750	.08750	-.18640
4.999	-9.440	-0.01470	-0.01720	.12660	-.00670	.00630	.08490	.00460	-.01360	.08500	-.18090
4.999	-8.480	-0.03370	-0.01690	.09150	-.00640	.00460	.08240	.00460	-.01260	.08250	-.15360
4.999	-4.400	-0.01740	-0.01690	.08680	-.00460	.00320	.08090	.00460	-.01640	.08100	-.20270
4.999	-2.360	-0.01310	-0.02210	.09910	-.00310	.00170	.07950	.00470	-.01410	.07970	-.17750
4.999	-3.40	-0.01690	-0.01940	.00960	.00020	.00320	.07780	.00470	-.01760	.07790	-.22610
4.999	1.670	-0.01570	-0.01790	-.02060	.00210	-.00140	.07620	.00460	-.01470	.07640	-.18750
4.999	3.710	-.02130	-0.01910	-.05140	.00290	-.00350	.07960	.00460	-.02030	.07980	-.23480
4.999	5.730	-.02210	-0.01700	-.07910	.00480	-.00460	.08100	.00460	-.02110	.08130	-.25990
4.999	7.750	-.02360	-0.01590	-.10960	.00540	-.00570	.08370	.00460	-.02270	.08400	-.27110
4.999	9.860	-.02750	-0.01530	-.13750	.00660	-.00700	.08610	.00460	-.02650	.08640	-.30350
4.999	-3.40	-0.01910	-0.01970	.00960	-.00010	-.00080	.07780	.00470	-.01710	.07780	-.22040
4.999	GRADIENT	-.00042	.00008	-.01459	.00102	-.00061	-.00018	-.00000	-.00042	-.00018	-.00566

(R07099) (17 SEP 73)

TABULATED SOURCE DATA - NSFC TWT 574
NSFC 574(0448) ORB 139 W/ALT NOSE

DATE 20 SEP 73

PARAMETRIC DATA

ALPHA = 10.000 ELEVTR = .000
ATLRON = .000 BOFLAP = .000
SPDRK = 999.990

REFERENCE DATA

9007 = 2000.0000 24.171. 300P = 938.7000 IN.
1007 = 474.8000 IN. 100P = .0000 IN.
5007 = 938.7000 IN. 200P = .0000 IN.
SCALE = .0040

RUN NO. 177/ 0 RVAL = 7.07 GRADIENT INTERVAL = -5.00/ 5.00

MACI	BETA	ON	CLM	CY	CYN	COL	CA	CAB	CL	CD	L/O
1.956	-10.360	.49500	-.06400	.19950	.00140	.01360	.13090	.03450	.46400	.21020	2.12640
1.956	-8.500	.49500	-.06070	.12250	.00200	.01080	.13380	.03450	.45480	.21080	2.07910
1.956	-6.570	.49500	-.06110	.08940	.00170	.00740	.13570	.03440	.46290	.22290	2.07550
1.956	-4.800	.49500	-.06190	.05970	.00140	.00450	.13510	.03260	.46030	.22180	2.07310
1.956	-2.110	.49500	-.06270	.02970	.00180	.00140	.13440	.03110	.45640	.22030	2.07170
1.956	.000	.49110	-.06290	-.01020	.00220	-.00110	.13400	.03090	.45080	.22030	2.06210
1.956	2.100	.48080	-.06170	-.04220	.00200	-.00370	.13380	.03310	.44890	.21910	2.05770
1.956	4.140	.46130	-.05980	-.07590	.00220	-.00640	.13460	.03370	.44910	.21910	2.04960
1.956	6.290	.46870	-.05910	-.10950	.00290	-.00930	.13780	.03670	.45580	.22360	2.03960
1.956	8.360	.46980	-.05950	-.14310	.00190	-.01230	.13610	.03840	.45680	.22420	2.03600
1.956	10.360	.46010	-.06100	-.18150	.00190	-.01530	.13480	.03840	.45780	.22110	2.07010
1.956	.000	.46820	-.06100	-.01200	.00190	-.00140	.12900	.03120	.43970	.20950	2.07970
1.956	GRADIENT	-.00146	.00025	-.01551	.00008	-.00129	-.00006	.00020	-.00143	-.00036	-.000310

RUN NO. 253/ 0 RVAL = 4.11 GRADIENT INTERVAL = -5.00/ 5.00

MACI	BETA	ON	CLM	CY	CYN	COL	CA	CAB	CL	CD	L/O
2.990	-10.450	.32290	-.03550	.15450	-.00220	.01510	.09800	.01950	.30160	.15120	1.99390
2.990	-8.500	.32150	-.03340	.12450	-.00260	.01280	.09750	.01910	.30010	.15050	1.99350
2.990	-6.480	.31820	-.03040	.09500	-.00180	.00960	.09810	.01920	.29890	.15080	1.97160
2.990	-4.440	.31450	-.02750	.05860	.00000	.00640	.09660	.01950	.29320	.15040	1.94920
2.990	-2.400	.31210	-.02570	.02960	.00050	.00330	.09790	.01950	.29100	.14940	1.94750
2.990	.000	.30970	-.02520	.00180	.00060	.00040	.09750	.01940	.28870	.14850	1.94620
2.990	1.700	.30990	-.02510	-.08910	.00090	-.00280	.09750	.01920	.28790	.14820	1.94270
2.990	3.740	.30660	-.02490	-.05720	.00110	-.00580	.09660	.01940	.28700	.14950	1.92580
2.990	5.780	.31130	-.02800	-.09020	.00290	-.00910	.09650	.01940	.28010	.14960	1.93900
2.990	7.810	.31010	-.02920	-.12250	.00330	-.01210	.09790	.01930	.28910	.14900	1.94020
2.990	9.790	.31350	-.03250	-.15200	.00350	-.01420	.09650	.01930	.29250	.15010	1.94850
2.990	.000	.30800	-.02550	.00160	.00090	.00010	.09640	.01940	.28720	.14760	1.94560
2.990	GRADIENT	-.00071	.00026	-.01417	.00012	-.00148	-.00003	-.00000	-.00070	-.00015	-.00271

DATE 28 SEP 73

TABULATED SOURCE DATA - NSFC TWT 574

NSFC 574 (0448) ORD 139 W/ALT NOSE

PAGE 129

(R87089) (17 SEP 73)

PARAMETRIC DATA

ALPHA = 10.000 ELEVTR = .000
 AILRON = .000 BOFLAP = .000
 SPDRK = 999.990

REFERENCE DATA

SRZF = 2880.0000 98.47. XPRP = 836.7000 IN.
 LREF = 474.0000 IN. YPRP = .0000 IN.
 BRZF = 936.7000 IN. ZPRP = .0000 IN.
 SCALE = .0040

RUN NO. 252/ 0 SNVL = 4.99 GRADIENT INTERVAL = -5.00/ 5.00

W/CH	BETA	CN	CLN	CY	CYN	CWL	CA	CAB	CL	CD	L/D
4.999	-10.340	.23090	-.01800	.12910	-.00010	.04310	.07820	.00490	.21430	.11540	1.65810
4.999	-8.420	.23080	-.02050	.09940	-.00030	.01100	.07620	.00500	.21470	.11390	1.69190
4.999	-6.420	.23080	-.01870	.07910	-.00080	.00990	.07310	.00510	.21520	.11290	1.91260
4.999	-4.400	.22780	-.01940	.05230	-.00070	.00830	.07440	.00500	.21200	.11120	1.90830
4.999	-2.340	.23080	-.01950	.02480	.00040	.00330	.07280	.00510	.21490	.10990	1.95580
4.999	-.340	.23010	-.02020	.00060	.00070	.00010	.07290	.00500	.21470	.11020	1.94840
4.999	1.670	.23080	-.01960	-.02390	-.00030	-.00240	.07350	.00510	.21550	.11070	1.94890
4.999	3.710	.23000	-.01920	-.04830	.00100	-.00320	.07350	.00520	.21450	.11060	1.93640
4.999	5.750	.22960	-.00980	-.07390	.00190	-.00740	.07440	.00530	.21400	.11190	1.91870
4.999	7.750	.22780	-.02100	-.10010	.00060	-.01000	.07540	.00530	.21190	.11220	1.88830
4.999	9.690	.22590	-.01810	-.12360	.00060	-.01160	.07690	.00540	.20980	.11320	1.85080
4.999	-3.40	.22880	-.02010	.00070	.00050	.00000	.07240	.00530	.21340	.10940	1.94960
4.999		.00027	.00001	-.01211	.00013	-.00142	-.00005	.00002	.00028	.00000	.00254

GRADIENT

III

DATE 28 SEP 73 TABULATED SOURCE DATA - MSFC TWT 574

(R07070) (17 SEP 73)

MSFC 574 (M448) ORB 139 W/ALT NOSE

PARAMETRIC DATA

ALPHA = 20.000 ELEVTR = .000
 AILRON = .000 ROTLAP = .000
 SPDRK = 999.990

REFERENCE DATA

SRIF = 2000.0000 90.00 FT. 3MRP = 836.7000 IN.
 LMRF = 474.0000 IN. YMRP = .0000 IN.
 SREF = 996.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

RUN NO. 172.0 RM/L = 7.07 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CH	CLM	CY	CYN	CM	CA	CAB	CL	CD	L/D
1.953	-10.400	.00560	-.10100	.13020	.02100	.01600	.12000	.03640	.63240	.40930	1.81630
1.953	-8.440	.94630	-.10170	.09920	.02010	.01240	.11900	.03690	.64400	.46330	1.81380
1.953	-6.390	.96420	-.10090	.06120	.01890	.00740	.12420	.03700	.64960	.47260	1.79740
1.953	-4.230	.96170	-.10060	.02820	.01950	.00360	.12890	.03690	.64620	.47420	1.78430
1.953	-2.130	.96040	-.09990	.00270	.00950	.00010	.12860	.03670	.64700	.47530	1.77640
1.953	.000	.95930	-.09950	-.01920	.00150	-.00160	.12860	.03690	.64330	.47490	1.77560
1.953	2.110	.95900	-.09940	-.04090	-.00620	-.00430	.12820	.03700	.64320	.47430	1.77760
1.953	4.190	.94730	-.09890	-.06500	-.01130	-.00810	.12360	.03630	.63430	.46340	1.79280
1.953	6.350	.93260	-.09830	-.09690	-.01500	-.01230	.12260	.03640	.63950	.46700	1.79770
1.953	8.470	.90610	-.10070	-.13660	-.01600	-.01620	.12180	.03620	.64570	.46650	1.80480
1.953	10.480	.86950	-.09670	-.17960	-.01740	-.02050	.12140	.03520	.64620	.46640	1.80630
1.953	.000	.84360	-.09690	-.01870	.00120	-.00160	.12630	.03680	.62990	.46630	1.77970
1.953	GRADIENT	-.00145	.00016	-.01069	-.00368	-.00134	-.00033	-.00003	-.00116	-.00068	.00084

RUN NO. 244.0 RM/L = 4.12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CH	CLM	CY	CYN	CM	CA	CAB	CL	CD	L/D
2.990	-10.530	.60750	-.08060	.12620	.01140	.00040	.09350	.01960	.61970	.33410	1.85460
2.990	-8.500	.60670	-.09990	.10130	.00990	.01640	.09490	.02000	.61910	.33330	1.85750
2.990	-6.320	.60570	-.09970	.07160	.00890	.01260	.09440	.01990	.61630	.33250	1.85960
2.990	-4.470	.60350	-.09850	.04090	.00780	.00760	.09430	.01960	.61620	.33150	1.86030
2.990	-2.410	.60360	-.09600	.01310	.00690	.00300	.09600	.01960	.61610	.33340	1.84800
2.990	.350	.60060	-.09590	-.00320	.00190	.00000	.09490	.01920	.61160	.33040	1.85100
2.990	1.710	.60190	-.09680	-.02820	-.00350	-.00270	.09480	.01900	.61470	.33130	1.85390
2.990	3.730	.60110	-.09600	-.05200	-.00540	-.00660	.09360	.01930	.61430	.33010	1.86090
2.990	5.810	.60140	-.09900	-.08220	-.01130	-.01130	.09340	.01960	.61470	.33000	1.86260
2.990	7.660	.60090	-.09930	-.10990	-.00740	-.01520	.09420	.01990	.61210	.32980	1.85260
2.990	9.680	.60050	-.09600	-.13940	-.00690	-.01920	.09540	.02000	.61310	.33150	1.84930
2.990	.350	.60150	-.09540	-.00560	.00200	-.00010	.09470	.01920	.61430	.33130	1.85430
2.990	GRADIENT	-.00031	.00001	-.01097	-.00179	-.00170	-.00013	-.00009	-.00025	-.00023	-.00054

DATE 28 SEP 73

TABULATED SOURCE DATA - MSFC TWT 574

MSFC 574 (0A48) ORB 139 W/ALT NOSE

REFERENCE DATA

SREF = 2890.0000 90.FT. XREF = 838.7000 IN.
 LREF = 474.8000 IN. YREF = .0000 IN.
 SREF = 936.7000 IN. ZREF = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

ALPHA = 20.000 ELEVTR = .000
 ATLRON = .000 BOFLAP = .000
 SPDRK = 999.999

RUN NO. 245/ 0 RW/L = 4.97 GRADIENT INTERVAL = -5.00/ 5.00

MACN	BETA	CM	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/O
4.999	-10.410	.58200	-.04560	.10370	.01140	.01700	.06270	.00480	.51760	.27830	1.86010
4.999	-9.470	.58670	-.04720	.08140	.00900	.01370	.06070	.00490	.52260	.27610	1.87990
4.999	-8.440	.59020	-.04810	.05840	.00720	.01060	.07980	.00520	.52270	.27690	1.88760
4.999	-4.430	.58790	-.04530	.03930	.00550	.00780	.07920	.00510	.52450	.27720	1.89170
4.999	-2.360	.58860	-.04370	.01750	.00390	.00570	.07850	.00500	.52360	.27620	1.89850
4.999	-.340	.58150	-.04530	.00340	.00220	.00000	.07800	.00520	.52790	.27620	1.89700
4.999	1.890	.58770	-.04320	-.02300	-.00050	-.00260	.07820	.00490	.52470	.27620	1.89970
4.999	3.670	.58450	-.04630	-.04440	-.00300	-.00640	.07740	.00500	.52190	.27430	1.90250
4.999	5.730	.58580	-.04590	-.06670	-.00450	-.00970	.07610	.00510	.52290	.27540	1.89830
4.999	7.770	.58380	-.04680	-.08690	-.00720	-.01270	.07930	.00520	.52060	.27590	1.86710
4.999	9.680	.58100	-.04400	-.10910	-.00900	-.01540	.08070	.00540	.51750	.27610	1.87360
4.999	-.340	.58680	-.04410	-.00340	.00200	.00010	.07890	.00520	.52350	.27650	1.89280
4.999	GRADIENT	-.00029	-.00007	-.01027	-.00106	-.00181	-.00019	-.00001	-.00021	-.00026	.00122

DATE 20 SEP 73

(R87071) (17 SEP 73)

TABULATED SOURCE DATA - NSFC TWT 574
NSFC 574 (0A48) ORB 139 W/ALT NOISE

PARAMETRIC DATA

ALPHA = 30.000 ELEVTR = .000
AIIIRON = .000 BDFLAP = .000
SPDBRK = 999.990

REFERENCE DATA

3REF = 2000.0000 96.FT. 3REF = 636.7000 IN.
LREF = 474.0000 IN. 1REF = .0000 IN.
BREF = 936.7000 IN. 2REF = .0000 IN.
SCALE = .0040

RUN NO. 239/ 0 RV/L = 4.12 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CM	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	-10.490	1.12590	-.09850	-.10360	-.01960	-.02220	-.10200	-.01970	-.91100	-.66810	1.36770
2.990	-9.320	1.12590	-.10070	-.07850	-.01710	-.01690	-.10090	-.02000	-.91560	-.66750	1.37150
2.990	-8.480	1.13370	-.10240	-.05130	-.01510	-.01160	-.10020	-.02010	-.92190	-.67070	1.37450
2.990	-4.450	1.13530	-.10470	-.02630	-.01150	-.00630	-.09820	-.01980	-.92270	-.66870	1.37960
2.990	-2.410	1.14130	-.10670	-.00820	-.00780	-.00210	-.09760	-.01960	-.92610	-.67150	1.38200
2.990	-.392	1.14600	-.10800	-.01290	-.00170	-.00060	-.09760	-.01940	-.92520	-.66970	1.38140
2.990	3.690	1.14170	-.10640	-.03120	-.00320	-.00310	-.09730	-.01930	-.92850	-.67140	1.38290
2.990	5.600	1.13720	-.10500	-.07070	-.00910	-.00690	-.09800	-.01930	-.92420	-.66950	1.38030
2.990	7.620	1.13130	-.10340	-.07370	-.01210	-.01170	-.09850	-.01980	-.91910	-.66700	1.37600
2.990	9.790	1.12670	-.10180	-.10190	-.01480	-.01730	-.09830	-.01960	-.91520	-.66480	1.37690
2.990	1.12100	1.12100	-.09650	-.12660	-.01710	-.02230	-.09890	-.01930	-.91010	-.66200	1.37470
2.990	1.13010	1.13010	-.10610	-.01300	-.00160	-.00070	-.09790	-.01940	-.92510	-.67000	1.38060
2.990	GRADIENT	-.00019	-.00005	-.00939	-.00265	-.00155	-.00003	-.00074	-.00017	-.00007	-.00011

RUN NO. 239/ 0 RV/L = 4.96 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CM	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.999	-10.370	1.01770	-.08510	-.06290	-.01720	-.01770	-.09440	-.00450	-.82900	-.59660	1.36900
4.999	-6.430	1.02450	-.08530	-.06390	-.01430	-.01440	-.09230	-.00450	-.83630	-.59690	1.36650
4.999	-6.430	1.02960	-.08540	-.04540	-.01060	-.01080	-.09190	-.00460	-.84110	-.60010	1.40160
4.999	-4.400	1.03100	-.08490	-.02520	-.00760	-.00670	-.09010	-.00460	-.84300	-.60030	1.40420
4.999	-2.390	1.03160	-.08440	-.00770	-.00490	-.00300	-.08920	-.00470	-.84430	-.59970	1.40760
4.999	-.340	1.03430	-.08760	-.00930	-.00150	-.00020	-.08920	-.00490	-.84640	-.60110	1.40820
4.999	3.670	1.03340	-.08660	-.02610	-.00260	-.00340	-.08890	-.00480	-.84560	-.60050	1.40900
4.999	5.710	1.03110	-.08690	-.04490	-.00560	-.00720	-.08940	-.00480	-.84340	-.59980	1.40600
4.999	7.750	1.02420	-.08650	-.06430	-.00820	-.01130	-.09070	-.00480	-.83730	-.59670	1.40310
4.999	9.660	1.01680	-.08620	-.10340	-.01140	-.01450	-.09170	-.00480	-.83690	-.59730	1.40090
4.999	1.01680	1.01680	-.08460	-.10340	-.01320	-.01790	-.09070	-.00490	-.83050	-.59350	1.39920
4.999	1.03060	1.03060	-.08460	-.00840	-.00190	-.00120	-.08810	-.00500	-.84390	-.59640	1.41010
4.999	GRADIENT	-.00029	-.00001	-.00862	-.00169	-.00169	-.00007	-.00001	-.00011	-.00001	-.00020

TABULATED SOURCE DATA - MSFC TWT 374

DATE 28 SEP 73

MSFC 374 (0448) ORB 139 W/ALT NOSE

(R07072) (17 SEP 73)

PARAMETRIC DATA

ALPHA = 40.000 ELEVTR = .000
 AILRON = .000 BDFLAP = .000
 SPDRK = 999.990

REFERENCE DATA

SRCP = 2990.0000 34.FT. XMRP = 838.7000 IN.
 LREF = 474.8000 IN. YMRP = .0000 IN.
 BRCP = 938.7500 IN. ZMRP = .0000 IN.
 SCALE = .0040

RUN NO. 246/ 0 RM/L = 4.98 GRADIENT INTERVAL = -5.00/ 5.00

WICH	BETA	CN	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
4.999	-10.390	1.49010	-1.14160	.06790	.02060	.01880	.10380	.00400	1.06240	1.05000	1.01180
4.999	-8.490	1.50150	-1.14480	.05060	.01760	.01580	.10160	.00420	1.07230	1.05590	1.01590
4.999	-8.490	1.51110	-1.14540	.03300	.01390	.01220	.09840	.00430	1.08160	1.05990	1.02030
4.999	-4.410	1.51280	-1.14650	.01540	.01060	.00870	.10020	.00440	1.08180	1.06220	1.01840
4.999	-2.390	1.51610	-1.14650	.00010	.00630	.00460	.09790	.00450	1.08370	1.06280	1.02150
4.999	-3.90	1.51120	-1.14650	.01610	.00250	.00010	.09790	.00460	1.08200	1.05950	1.02120
4.999	1.680	1.51210	-1.14560	.00030	.00120	.00370	.09710	.00460	1.08310	1.05950	1.02220
4.999	3.670	1.50810	-1.14670	.04710	.00610	.00760	.09690	.00450	1.08030	1.05500	1.02110
4.999	5.750	1.50470	-1.14490	.06400	.00990	.01130	.09750	.00450	1.07730	1.05500	1.01830
4.999	7.750	1.49120	-1.14160	.08060	.01300	.01510	.09890	.00440	1.06630	1.04700	1.01480
4.999	9.680	1.48170	-1.13590	.09810	.01660	.01890	.10090	.00430	1.05790	1.04230	1.02120
4.999	-3.90	1.51390	-1.14320	.01550	.00300	.00000	.09790	.00460	1.08390	1.06140	1.02120
4.999	GRADIENT	-1.00066	.00002	.00767	.01202	.00202	-.00035	.00701	-.00028	-.00071	.00041

DATE 20 SEP 73

TABULATED SOURCE DATA - MSFC TWT 574

MSFC 574 (0448) ORB 139 W/ALT NOISE

(R07073) (17 SEP 73)

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 AIRCON = .000 BDFLAP = 13.750
 SPD8RK = 999.990

REFERENCE DATA

SREF = 2090.0000 50.FT. YMRP = 833.7000 IN.
 LREF = 474.8000 IN. YMRP = .0000 IN.
 SREF = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

RUN NO. 270/ 0 RN/L = 5.03 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	ON	GLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.002	-4.00	.06650	-.00290	.00060	.00040	.00260	.06620	.03330	.06900	.06570	1.04940
.002	1.900	.16700	-.00740	-.00020	.00040	.00250	.06470	.03460	.16510	.06930	2.36280
.002	3.850	.27720	-.01320	-.00190	.00070	.00250	.03620	.03490	.27290	.07580	3.59900
.002	5.750	.36000	-.01990	-.00530	.00090	.00230	.03040	.03480	.37300	.08820	4.22510
.002	7.840	.49670	-.02710	-.00880	.00230	.00310	.04000	.03900	.47810	.11030	4.33310
.002	9.940	.57620	-.03700	-.00910	.00150	.00280	.03460	.03330	.56010	.15370	3.64400
.002	12.030	.68450	-.04290	-.00770	.00070	.00000	.03560	.03660	.65780	.19720	3.33530
.002	14.180	.80160	-.04310	-.01340	.00100	.01030	.03240	.04030	.76440	.24690	3.09510
.002	16.270	.92570	-.04540	-.00610	-.00050	.00450	.03030	.04380	.87450	.30780	2.84090
.002	18.380	1.04580	-.05050	-.00660	.00000	-.00230	.03030	.04720	.97670	.37720	2.56880
.002	20.380	1.15270	-.04910	-.01180	.00170	-.00480	.03090	.05450	1.06300	.44930	2.36990
.002	9.940	.57620	-.03530	-.00910	.00140	.00270	.03490	.03510	.56100	.15410	3.63970
.002	.05154	.00235	-.00235	-.00062	.00007	-.00002	-.00198	-.00010	.05036	.00250	.62921

RUN NO. 271/ 0 RN/L = 6.27 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	ON	GLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.005	-3.50	.07390	-.00310	-.00240	.00090	-.00030	.06160	.03760	.07440	.06120	.91610
.005	1.710	.19350	-.01360	-.00490	.00100	-.00120	.06270	.03770	.19100	.08850	2.13610
.005	3.650	.30230	-.02210	-.00760	.00180	-.00010	.06520	.03790	.29590	.10530	2.60820
.005	6.000	.40480	-.03640	-.00720	.00270	-.00110	.06960	.03900	.39320	.13150	2.98900
.005	8.140	.50410	-.04910	-.01110	.00290	-.00010	.09120	.03910	.48810	.16170	3.00390
.005	10.330	.62920	-.06710	-.01350	.00220	.00310	.09400	.04260	.60240	.20540	2.93270
.005	12.520	.76580	-.09510	-.01860	.00340	.00360	.10120	.04530	.72560	.26480	2.74000
.005	14.720	.90690	-.11260	-.01320	.00210	.00390	.10690	.05110	.85190	.33440	2.54710
.005	16.910	1.02150	-.11430	-.01760	.00050	.00450	.11000	.05600	.94540	.40240	2.34920
.005	19.030	1.11490	-.11560	-.01760	.00290	.00020	.11740	.06720	1.01560	.47480	2.13960
.005	21.080	1.17720	-.10030	-.01360	.00060	-.00020	.12560	.07780	1.05310	.54070	1.94750
.005	10.330	.62640	-.06640	-.01310	.00230	-.00300	.09270	.04180	.99960	.20370	2.94350
.005	.05436	.00452	-.00452	-.00124	.00022	.00005	.00286	.00007	.05271	.00575	.44955

DATE 28 SEP 73

(R07073) (17 SEP 73)

TABULATED SOURCE DATA - MFC TMT 974
MFC 574 (0448) ORB 139 W/ALT NOSE

REFERENCE DATA

SREF = 2890.0000 38.47. YMRP = 038.7000 IN.
LREF = 474.0000 IN. YMRP = .0000 IN.
BREF = 938.7000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
AIRLON = .000 BDFLAP = 13.750
SPDRK = 999.990

RUN NO. 272/ 0 RV/L = 6.66 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CSL	CA	CAB	CL	CD	L/D
1.801	-2.50	.13970	-.02350	.00150	.00130	-.00010	.18470	.08260	.14050	.18410	.78320
1.801	1.800	.28780	-.03130	-.00120	.00140	-.00130	.18750	.08310	.26140	.19810	1.33300
1.801	4.050	.39430	-.07490	-.00250	.00150	-.00130	.18890	.06290	.30000	.21630	1.75630
1.801	6.250	.30860	-.09090	-.00480	.00210	-.00010	.18920	.06430	.48500	.24340	1.99200
1.801	8.440	.61770	-.10320	-.00820	.00270	.00110	.18900	.06750	.58320	.27770	2.09970
1.801	10.690	.78010	-.13060	-.01060	.00320	.00230	.18890	.07040	.71180	.32670	2.37680
1.801	12.920	.88750	-.14890	-.01090	.00300	.00120	.18920	.07060	.82270	.38290	2.14650
1.801	15.140	1.00700	-.16250	-.01360	.00300	.00080	.19090	.07390	.92220	.44740	2.06110
1.801	17.340	1.10750	-.16750	-.01610	.00390	.00060	.19170	.07640	.99990	.51310	1.94680
1.801	19.500	1.20210	-.17690	-.02270	.00630	.00160	.19210	.08000	1.06000	.58240	1.83530
1.801	21.560	1.30040	-.17160	-.02000	.00480	.00010	.19060	.08150	1.13900	.65570	1.73700
1.801	10.700	.78230	-.12960	-.01020	.00300	.00270	.18930	.06890	.71400	.32660	2.18580
1.801	10.700	.05920	-.01192	-.00793	.00005	-.00126	.00097	.00007	.03569	.00750	.23072

RUN NO. 181/ 0 RV/L = 7.14 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CSL	CA	CAB	CL	CD	L/D
1.848	-3.90	.05940	-.01610	-.00020	.00120	-.00010	.14050	.03360	.08040	.14010	.43120
1.848	1.860	.14580	-.03020	-.00100	.00140	-.00030	.14030	.03270	.14160	.14450	.90020
1.848	3.650	.24200	-.04560	-.00250	.00150	-.00040	.14330	.03290	.23180	.15920	1.45570
1.848	6.050	.33360	-.06050	-.00370	.00140	-.00040	.14300	.03220	.31680	.17750	1.78860
1.848	8.200	.42000	-.07250	-.00650	.00210	-.00060	.14110	.03210	.39560	.19960	1.98180
1.848	10.390	.50790	-.08290	-.00750	.00170	-.00050	.13970	.03210	.47440	.22910	2.07040
1.848	12.590	.58600	-.09200	-.00750	.00160	-.00040	.13910	.03370	.55410	.26640	2.07980
1.848	14.720	.66150	-.09840	-.00830	.00190	-.00040	.13770	.03370	.62410	.30630	2.03710
1.848	16.870	.78590	-.10670	-.01000	.00210	-.00050	.13920	.03450	.71100	.36280	1.98030
1.848	19.180	.88570	-.11710	-.01180	.00230	-.00050	.13920	.03530	.79090	.42220	1.87590
1.848	21.270	.96430	-.12630	-.01290	.00270	-.00050	.14010	.03720	.86640	.48760	1.77670
1.848	10.380	.90190	-.08060	-.00590	.00190	-.00050	.13830	.03250	.46890	.22650	2.06960
1.848	10.380	.04306	-.00701	-.00050	.00007	-.00007	.00067	-.00016	.04043	.00452	.24145

1802073) (17 SEP 73)

REF ID: A66666

PARAMETRIC DATA

BETA	=	.000	ELEVTR	=	.000
AILRON	=	.000	BDFLAP	=	13.750
SPDRK	=	999.990			

DIFFERENCE DATA

10000	=	2000.0000	98.77.	10000	=	839.7000	IN.
10000	=	474.0000	IN.	10000	=	.0000	IN.
10000	=	936.7000	IN.	10000	=	.0000	IN.
SCALE	=		.0040				

Iteration	SNR	SNR/2	SNR/4	SNR/8	SNR/16	SNR/32	SNR/64	SNR/128	SNR/256	SNR/512	SNR/1024	SNR/2048	SNR/4096	SNR/8192	SNR/16384	SNR/32768	SNR/65536	SNR/131072	SNR/262144	SNR/524288	SNR/1048576	SNR/2097152	SNR/4194304	SNR/8388608	SNR/16777216	SNR/33554432	SNR/67108864	SNR/134217728	SNR/268435456	SNR/536870912	SNR/1073741824	SNR/2147483648	SNR/4294967296	SNR/8589934592	SNR/17179869184	SNR/34359738368	SNR/68719476736	SNR/137438953472	SNR/274877906944	SNR/549755813888	SNR/1099511627776	SNR/2199023255552	SNR/4398046511104	SNR/8796093022208	SNR/17592186044416	SNR/35184372088832	SNR/70368744177664	SNR/140737488355328	SNR/281474976710656	SNR/562949953421312	SNR/1125899906842624	SNR/2251799813685248	SNR/4503599627370496	SNR/9007199254740992	SNR/18014398509481984	SNR/36028797018963968	SNR/72057594037927936	SNR/144115188075855872	SNR/288230376151711744	SNR/576460752303423488	SNR/1152921504606846976	SNR/2305843009213693952	SNR/4611686018427387904	SNR/9223372036854775808	SNR/18446744073709551616	SNR/36893488147419103232	SNR/73786976294838206464	SNR/147573952589676412928	SNR/295147905179352825856	SNR/590295810358705651712	SNR/1180591620717411303424	SNR/2361183241434822606848	SNR/4722366482869645213696	SNR/9444732965739290427392	SNR/18889465931478580854784	SNR/37778931862957161709568	SNR/75557863725914323419136	SNR/151115727451828646838272	SNR/302231454903657293676544	SNR/604462909807314587353088	SNR/1208925819614629174706176	SNR/2417851639229258349412352	SNR/4835703278458516698824704	SNR/9671406556917033397649408	SNR/19342813113834066795298816	SNR/38685626227668133590597632	SNR/77371252455336267181195264	SNR/154742504910672534362390528	SNR/309485009821345068724781056	SNR/618970019642690137449562112	SNR/1237940039285380274899124224	SNR/2475880078570760549798248448	SNR/4951760157141521099596496896	SNR/9903520314283042199192993792	SNR/19807040628566084398385987584	SNR/39614081257132168796771975168	SNR/79228162514264337593543950336	SNR/158456325028528675187087900672	SNR/316912650057057350374175801344	SNR/633825300114114700748351602688	SNR/1267650600228229401496703205376	SNR/2535301200456458802993406410752	SNR/5070602400912917605986812821504	SNR/10141204801825835211973625643008	SNR/20282409603651670423947251286016	SNR/40564819207303340847894502572032	SNR/81129638414606681695789005144064	SNR/162259276829213363391578010288128	SNR/324518553658426726783156020576256	SNR/649037107316853453566312041152512	SNR/1298074214633706907132624082305024	SNR/2596148429267413814265248164610048	SNR/5192296858534827628530496329220096	SNR/10384593717069655257060992658440192	SNR/20769187434139310514121985316880384	SNR/41538374868278621028243970633760768	SNR/83076749736557242056487941267521536	SNR/166153499473114484112975882535043072	SNR/332306998946228968225951765070086144	SNR/664613997892457936451903530140172288	SNR/1329227995784915872903807060280344576	SNR/2658455991569831745807614120560689152	SNR/5316911983139663491615228241121378304	SNR/10633823966279326983230456482242756608	SNR/21267647932558653966460912964485513216	SNR/42535295865117307932921825928971026432	SNR/85070591730234615865843651857942052864	SNR/170141183460469231731687303715884105728	SNR/340282366920938463463374607431768211456	SNR/680564733841876926926749214863536422912	SNR/1361129467683753853853498429727072845824	SNR/2722258935367507707706996859454145691648	SNR/5444517870735015415413993718908291383296	SNR/10889035741470030830827987437816582766592	SNR/21778071482940061661655974875633165533184	SNR/43556142965880123323311949751266331066368	SNR/87112285931760246
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Wavelength (nm)	Alpha	CH	QJM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	-0.990	0.1290	-0.1570	-0.0150	0.0060	-0.0050	0.10650	0.1750	0.1340	0.1040	0.12650
2.980	0.0660	-0.1600	-0.0090	-0.0090	0.0060	-0.0040	0.10560	0.1790	0.1290	0.10750	0.58570
2.970	1.480	0.0660	-0.0090	-0.0090	0.0060	-0.0040	0.10360	0.1830	0.12500	0.1100	1.11000
2.960	3.530	0.1310	-0.0230	-0.0190	0.0090	-0.0030	0.10360	0.1870	0.17940	0.12050	1.49100
2.950	5.590	0.1900	-0.0270	-0.0090	0.0060	-0.0030	0.10220	0.1910	0.23950	0.13480	1.77600
2.940	7.660	0.2540	-0.0320	-0.0030	0.0060	-0.0030	0.10170	0.1940	0.30200	0.15490	1.94990
2.930	9.750	0.3290	-0.0370	-0.0040	0.0110	-0.0040	0.10140	0.1940	0.36640	0.16000	2.03520
2.920	11.820	0.3950	-0.0430	-0.0040	0.0120	-0.0040	0.10120	0.1910	0.42950	0.21020	2.04270
2.910	13.860	0.4670	-0.0490	-0.0050	0.0120	-0.0060	0.10060	0.1870	0.49700	0.24720	2.01010
2.900	15.900	0.5490	-0.0560	-0.0060	0.0120	-0.0060	0.10060	0.1870	0.55990	0.28670	1.93900
2.890	18.000	0.6210	-0.0640	-0.0060	0.0130	-0.0060	0.10060	0.1870	0.62290	0.33560	1.85580
2.880	20.050	0.7020	-0.0720	-0.0060	0.0130	-0.0070	0.10160	0.1870	0.68720	0.3720	1.97090
2.870	22.050	0.7820	-0.0800	-0.0060	0.0130	-0.0070	0.10150	0.1950	0.75070	0.41355	2.0668
2.860	24.050	0.8620	-0.0880	-0.0060	0.0130	-0.0070	-0.00067	0.0002	0.81778	0.00135	
2.850	26.050	0.9420	-0.0960	-0.0060	0.0130	-0.0070					
2.840	28.050	1.0220	-0.1040	-0.0060	0.0130	-0.0070					
2.830	30.050	1.1020	-0.1120	-0.0060	0.0130	-0.0070					
2.820	32.050	1.1820	-0.1200	-0.0060	0.0130	-0.0070					
2.810	34.050	1.2620	-0.1280	-0.0060	0.0130	-0.0070					
2.800	36.050	1.3420	-0.1360	-0.0060	0.0130	-0.0070					
2.790	38.050	1.4220	-0.1440	-0.0060	0.0130	-0.0070					
2.780	40.050	1.5020	-0.1520	-0.0060	0.0130	-0.0070					
2.770	42.050	1.5820	-0.1600	-0.0060	0.0130	-0.0070					
2.760	44.050	1.6620	-0.1680	-0.0060	0.0130	-0.0070					
2.750	46.050	1.7420	-0.1760	-0.0060	0.0130	-0.0070					
2.740	48.050	1.8220	-0.1840	-0.0060	0.0130	-0.0070					
2.730	50.050	1.9020	-0.1920	-0.0060	0.0130	-0.0070					
2.720	52.050	1.9820	-0.2000	-0.0060	0.0130	-0.0070					
2.710	54.050	2.0620	-0.2080	-0.0060	0.0130	-0.0070					
2.700	56.050	2.1420	-0.2160	-0.0060	0.0130	-0.0070					
2.690	58.050	2.2220	-0.2240	-0.0060	0.0130	-0.0070					
2.680	60.050	2.3020	-0.2320	-0.0060	0.0130	-0.0070					
2.670	62.050	2.3820	-0.2400	-0.0060	0.0130	-0.0070					
2.660	64.050	2.4620	-0.2480	-0.0060	0.0130	-0.0070					
2.650	66.050	2.5420	-0.2560	-0.0060	0.0130	-0.0070					
2.640	68.050	2.6220	-0.2640	-0.0060	0.0130	-0.0070					
2.630	70.050	2.7020	-0.2720	-0.0060	0.0130	-0.0070					
2.620	72.050	2.7820	-0.2800	-0.0060	0.0130	-0.0070					
2.610	74.050	2.8620	-0.2880	-0.0060	0.0130	-0.0070					
2.600	76.050	2.9420	-0.2960	-0.0060	0.0130	-0.0070					
2.590	78.050	3.0220	-0.3040	-0.0060	0.0130	-0.0070					
2.580	80.050	3.1020	-0.3120	-0.0060	0.0130	-0.0070					
2.570	82.050	3.1820	-0.3200	-0.0060	0.0130	-0.0070					
2.560	84.050	3.2620	-0.3280	-0.0060	0.0130	-0.0070					
2.550	86.050	3.3420	-0.3360	-0.0060	0.0130	-0.0070					
2.540	88.050	3.4220	-0.3440	-0.0060	0.0130	-0.0070					
2.530	90.050	3.5020	-0.3520	-0.0060	0.0130	-0.0070					
2.520	92.050	3.5820	-0.3600	-0.0060	0.0130	-0.0070					
2.510	94.050	3.6620	-0.3680	-0.0060	0.0130	-0.0070					
2.500	96.050	3.7420	-0.3760	-0.0060	0.0130	-0.0070					
2.490	98.050	3.8220	-0.3840	-0.0060	0.0130	-0.0070					
2.480	100.050	3.9020	-0.3920	-0.0060	0.0130	-0.0070					
2.470	102.050	3.9820	-0.4000	-0.0060	0.0130	-0.0070					
2.460	104.050	4.0620	-0.4080	-0.0060	0.0130	-0.0070					
2.450	106.050	4.1420	-0.4160	-0.0060	0.0130	-0.0070					
2.440	108.050	4.2220	-0.4240	-0.0060	0.0130	-0.0070					
2.430	110.050	4.3020	-0.4320	-0.0060	0.0130	-0.0070					
2.420	112.050	4.3820	-0.4400	-0.0060	0.0130	-0.0070					
2.410	114.050	4.4620	-0.4480	-0.0060	0.0130	-0.0070					
2.400	116.050	4.5420	-0.4560	-0.0060	0.0130	-0.0070					
2.390	118.050	4.6220	-0.4640	-0.0060	0.0130	-0.0070					
2.380	120.050	4.7020	-0.4720	-0.0060	0.0130	-0.0070					
2.370	122.050	4.7820	-0.4800	-0.0060	0.0130	-0.0070					
2.360	124.050	4.8620	-0.4880	-0.0060	0.0130	-0.0070					
2.350	126.050	4.9420	-0.4960	-0.0060	0.0130	-0.0070					
2.340	128.050	5.0220	-0.5040	-0.0060	0.0130	-0.0070					
2.330	130.050	5.1020	-0.5120	-0.0060	0.0130	-0.0070					
2.320	132.050	5.1820	-0.5200	-0.0060	0.0130	-0.0070					
2.310	134.050	5.2620	-0.5280	-0.0060	0.0130	-0.0070					
2.300	136.050	5.3420	-0.5360	-0.0060	0.0130	-0.0070					
2.290	138.050	5.4220	-0.5440	-0.0060	0.0130	-0.0070					
2.280	140.050	5.5020	-0.5520	-0.0060	0.0130	-0.0070					
2.270	142.050	5.5820	-0.5600	-0.0060	0.0130	-0.0070					
2.260	144.050	5.6620	-0.5680	-0.0060	0.0130	-0.0070					
2.250	146.050	5.7420	-0.5760	-0.0060	0.0130	-0.0070					
2.240	148.050	5.8220	-0.5840	-0.0060	0.0130	-0.0070					
2.230	150.050	5.9020	-0.5920	-0.0060	0.0130	-0.0070					
2.220	152.050	5.9820	-0.6000	-0.0060	0.0130	-0.0070					
2.210	154.050	6.0620	-0.6080	-0.0060	0.0130	-0.0070					
2.200	156.050	6.1420	-0.6160	-0.0060	0.0130	-0.0070					
2.190	158.050	6.2220	-0.6240	-0.0060	0.0130	-0.0070					
2.180	160.050	6.3020	-0.6320	-0.0060	0.0130	-0.0070					
2.170	162.050	6.3820	-0.6400	-0.0060	0.0130	-0.0070					
2.160	164.050	6.4620	-0.6480	-0.0060	0.0130	-0.0070					
2.150	166.050	6.5420	-0.6560	-0.0060	0.0130	-0.0070					
2.140	168.050	6.6220	-0.6640	-0.0060	0.0130	-0.0070					
2.130	170.050	6.7020	-0.6720	-0.0060	0.0130	-0.0070					
2.120	172.050	6.7820	-0.6800	-0.0060	0.0130	-0.0070					
2.110	174.050	6.8620	-0.6880	-0.0060	0.0130	-0.0070					
2.100	176.050	6.9420	-0.6960	-0.0060	0.0130	-0.0070					
2.090	178.050	7.0220	-0.7040	-0.0060	0.0130	-0.0070					
2.080	180.050	7.1020	-0.7120	-0.0060	0.0130	-0.0070					
2.070	182.050	7.1820	-0.7200	-0.0060	0.0130	-0.0070					
2.060	184.050	7.2620	-0.7280	-0.0060	0.0130	-0.0070					
2.050	186.050	7.3420	-0.7360	-0.0060	0.0130	-0.0070					
2.040	188.050	7.4220	-0.7440	-0.0060	0.0130	-0.0070					
2.030	190.050	7.5020	-0.7520	-0.0060	0.0130	-0.0070					
2.020	192.050	7.5820	-0.7600	-0.0060	0.0130	-0.0070					
2.010	194.050	7.6620	-0.7680	-0.0060	0.0130	-0.0070					
2.000	196.050	7.7420	-0.7760	-0.0060	0.0130	-0.0070					
1.990	198.050	7.8220	-0.7840	-0.0060	0.0130	-0.0070					
1.980	200.050	7.9020	-0.7920	-0.0060	0.0130	-0.0070					
1.970	202.050	7.9820	-0.8000	-0.0060	0.0130	-0.0070					
1.960	204.050	8.0620	-0.8080	-0.0060	0.0130	-0.0070					
1.950	206.050	8.1420	-0.8160	-0.0060	0.0130	-0.0070					
1.940	208.050	8.2220	-0.8240	-0.0060	0.0130	-0.0070					
1.930	210.050	8.3020	-0.8320	-0.0060	0.0130	-0.0070					
1.920	212.050	8.3820	-0.8400	-0.0060	0.0130	-0.0070					
1.910	214.050	8.4620	-0.8480	-0.0060	0.0130	-0.0070					
1.900	216.050	8.5420	-0.8560	-0.0060	0.0130	-0.0070					
1.890	218.050	8.6220	-0.8640	-0.0060	0.0130	-0.0070					
1.880	220.050	8.7020	-0.8720	-0.0060	0.0130	-0.0070					
1.870	222.050	8.7820	-0.8800	-0.0060	0.0130	-0.0070					
1.860	224.050	8.8620	-0.8880	-0.0060	0.0130	-0.0070					
1.850	226.050	8.9420	-0.8960	-0.0060	0.0130	-0.0070					
1.840	228.050	9.0220	-0.9040	-0.0060	0.0130	-0.0070					
1.830	230.050	9.1020	-0.9120	-0.0060	0.0130	-0.0070					
1.820</											

	-	0.94	GRADIENT INTERVAL = -5.00/ 5.00
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WACH	ALPHA	GN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.999	-.510	-.01310	-.02260	-.00180	.00100	.00010	.06090	.00410	-.01240	.08100	-.15360
4.999	1.430	.02940	-.02270	-.00340	.00000	-.00010	.07910	.00430	.02640	.07960	.35150
4.999	3.440	.07270	-.02210	-.00030	.00010	.00030	.07760	.00440	.06780	.08290	.82760
4.999	5.470	.12340	-.02310	-.00390	.00030	.00000	.07610	.00440	.11560	.08750	1.31980
4.999	7.510	.17490	-.02310	-.00230	.00010	.00060	.07560	.00450	.16350	.09760	1.67150
4.999	9.560	.23430	-.02360	-.00210	.00010	.00070	.07500	.00460	.21640	.11560	1.92180
4.999	11.600	.29310	-.03010	-.00200	.00000	-.00000	.07600	.00450	.27160	.13340	2.03670
4.999	13.600	.34920	-.03450	-.00360	.00020	.00100	.07740	.00480	.33090	.15970	2.07110
4.999	15.700	.40370	-.03850	-.00360	.00060	.00080	.07950	.00470	.36830	.19160	2.08370
4.999	17.750	.45370	-.04300	-.00590	.00000	.00060	.08090	.00470	.43760	.23140	1.97420
4.999	19.660	.50250	-.04500	-.00540	.00030	.00080	.08410	.00470	.52010	.27540	1.86660
4.999	23.460	.56280	-.05400	-.00270	.00020	.00030	.07560	.00450	.21900	.11360	1.92440
4.999	26.172	.60016	-.00016	.00023	.00023	.00003	-.00076	.00006	.02031	.00026	.24640

DATE 28 SEP 73

TABULATED SOURCE DATA - NSFC TR: 574

WSEC 974 (04/18) CRB 139 W/ALT NOSE

(R07074) (17 SEP 73)

PARAMETRIC DATA

BETA =	.000	ELEVTR =	.000
AILRON =	.000	BOFLAP =	13.750
SPDSBK =	999.990		

REFERENCE DATA

3007	=	260.0000	98.77.	3098	=	936.7000	IN.
3007	=	474.9000	IN.	3098	=	.0000	IN.
3007	=	936.7000	IN.	3098	=	.0000	IN.
SCALE	=		.0040				

[illegible]

MACH	ALPHA	CH	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	20.820	.70660	-.07360	-.01100	.00010	-.00060	.01090	.01660	.62340	.3430	1.61620
2.990	22.860	.78590	-.08310	-.01130	.00040	-.00060	.03000	.01650	.66970	.39740	1.72520
2.990	24.660	.87790	-.09440	-.01190	.00010	-.00040	.04070	.01650	.73360	.46190	1.83190
2.990	26.780	.96620	-.10660	-.01320	.00010	-.00060	.04610	.01650	.81460	.53010	1.93390
2.990	28.670	1.06070	-.11920	-.01410	.00060	-.00120	.07790	.01660	.87670	.60870	1.44500
2.990	30.990	1.19950	-.13210	-.01520	.00060	-.00100	.10990	.01900	.93730	.69130	1.35570
2.990	33.100	1.25640	-.14230	-.01660	.00070	-.00140	.11110	.01910	.99330	.76050	1.27260
2.990	35.160	1.35190	-.15630	-.01690	.00060	-.00120	.11260	.01920	1.04020	.87060	1.19440
2.990	37.300	1.49650	-.16970	-.01760	.00120	-.00150	.11460	.01920	1.06900	.97390	1.11610
2.990	39.400	1.55440	-.18340	-.01910	.00120	-.00170	.11560	.01930	1.12600	1.07630	1.04600
2.990	41.370	1.64600	-.19360	-.01600	.00160	-.00130	.11660	.01920	1.15950	1.17660	.96520
2.990	30.990	1.16390	-.13250	-.01610	.00060	-.00110	.10930	.01910	.94270	.69400	1.35620
GRADIENT		.04566	-.00993	-.00044	.00007	-.00004	.00074	.00004	.02616	.04036	-.04033

DATA =	4.93	CONSTANT INTERVAL =	-5.00/	5.00
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WACH	ALPHA	ON	CLM	CV	CYN	CEL	CA	CAB	CL	CD	L/D
4.899	20.280	.96780	-.06070	-.00820	.00080	-.00090	.08910	.00420	.53110	.28990	1.63100
4.934	22.230	.97810	-.06960	-.00650	.00080	-.00090	.08610	.01420	.56430	.33420	1.79700
4.999	24.280	.98710	-.08080	-.00660	.00080	-.00120	.09050	.00420	.68210	.39760	1.68410
4.939	26.360	.99760	-.09410	-.01050	.00100	-.00120	.09320	.00420	.75790	.46390	1.56610
4.999	28.360	.99610	-.10420	-.01150	.00130	-.00130	.09630	.00430	.79540	.53960	1.47490
4.999	30.450	1.02390	-.11660	-.01270	.00080	-.00090	.09910	.00440	.83790	.61950	1.36480
4.999	32.510	1.15340	-.13000	-.01360	.00050	-.00120	.10220	.00450	.91760	.72990	1.29930
4.899	34.570	1.29220	-.14180	-.01430	.00190	-.00190	.10530	.00430	.97160	.79660	1.21990
4.999	36.650	1.35170	-.15250	-.01590	.00050	-.00190	.10740	.00430	1.05030	.89310	1.14240
4.999	38.690	1.45060	-.16890	-.01600	.00230	-.00190	.10990	.00430	1.08350	.99260	1.07140
4.999	40.640	1.54500	-.18010	-.01760	.00190	-.00200	.11100	.00410	1.09990	1.09360	1.00650
4.999	30.450	1.02690	-.11610	-.01260	.00190	-.00160	.11000	.00440	.86040	.62100	1.36350
4.899	20.280	.96780	-.06070	-.00820	.00076	-.00076	.09132	.00000	.02641	.03972	-.04166

DATE 26 SEP 73

TABULATED SOURCE DATA - NSFC TMT 374

NSFC 374 (0448) CRB 139 WALT NOSE

(08075) (17 SEP 73)

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 ALLRON = .000 BOFLAP = -14.250
 SPOBRK = 999.990

REFERENCE DATA

REF = 2880.0000 98.77. YMRP = 838.7500 IN.
 LMRP = 474.0000 IN. YMRP = .0000 IN.
 RMRP = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

RUN NO. 0/0 RV/L = 5.02 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	ON	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
.600	-.440	-.00480	.00800	.00130	-.00010	.00260	.05920	.02930	-.00830	.05920	-.14140
.600	1.540	.08790	.04270	-.00150	.00000	.00290	.05710	.02970	.04630	.05940	1.43170
.600	3.310	.19240	.03860	-.00020	.00040	.00260	.05170	.02980	.03860	.06380	2.53810
.600	5.780	.30490	.03340	-.00470	.00100	.00230	.04290	.02920	.02970	.07300	4.08830
.600	7.910	.41240	.02510	-.00660	.00170	.00260	.03600	.02900	.00370	.09170	4.39990
.600	9.900	.49920	.01690	-.00750	.00090	.00250	.04540	.03050	.04390	.13070	3.70190
.600	12.000	.60740	.01080	-.00890	.00130	.00000	.04670	.03260	.04440	.17800	3.39680
.600	14.120	.71620	.01110	-.01090	.00050	.00960	.04320	.03330	.04400	.21670	3.15960
.600	16.230	.82930	.01130	-.01140	.00040	.00960	.04110	.03640	.04470	.27420	2.89890
.600	18.380	.95430	.01010	-.00750	.00040	-.00230	.04080	.03960	.03910	.33680	2.63620
.600	20.310	1.05370	.01110	-.01360	.00170	-.00430	.04060	.04670	.03740	.40390	2.41160
.600	9.900	.49900	.01590	-.01460	.00130	.00230	.04490	.03060	.04360	.13010	3.71710
GRADIENT		.04969	-.00178	-.00056	.00012	.00005	-.00186	.00012	.04867	.00114	.76502

RUN NO. 0/0 RV/L = 6.29 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	ON	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
.903	-.360	.02790	.04170	-.00210	.00070	.00000	.07970	.03070	.02840	.07630	.37220
.903	1.690	.13620	.03190	-.00060	.00060	-.00090	.07660	.02900	.13560	.06260	1.64330
.903	3.630	.29070	.02180	-.00610	.00120	-.00030	.07970	.02990	.24480	.09430	2.54180
.903	5.970	.34420	.01910	-.00620	.00230	-.00100	.06230	.03030	.33370	.11790	2.83030
.903	8.080	.42660	.00860	-.01100	.00240	.00120	.06240	.03210	.41290	.14200	2.90780
.903	10.280	.54440	-.00920	-.01460	.00240	.00230	.06370	.03350	.53020	.18340	2.89100
.903	12.490	.69350	-.03550	-.02060	.00350	.00110	.06110	.03970	.63740	.23690	2.75120
.903	14.690	.81670	-.04330	-.01410	.00210	.00390	.06490	.04320	.79790	.29940	2.58400
.903	16.890	.92300	-.03900	-.01270	.00070	.00430	.06900	.04880	.85460	.36240	2.35780
.903	18.940	.99160	-.02260	-.01520	.00250	-.00110	.10510	.05610	.90370	.42140	2.14430
.903	20.980	1.04150	-.00110	-.01290	.00020	-.00030	.11160	.06460	.93830	.47740	1.92860
.903	10.310	.55440	-.00650	-.01490	.00270	.00260	.06900	.03690	.93120	.18310	2.90070
GRADIENT		.05317	-.00475	-.00097	.00012	-.00007	.00071	-.00019	.03164	.00474	.51709

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TABULATED SOURCE DATA - NSFC TWT 974

NSFC 974 (0448) CRB 139 W/ALT NOSE

(R07079) (17 SEP 73)

REFERENCE DATA

REF = 2000.0000 50.0 FT. XREF = 039.7000 IN.
 LREF = 474.8000 IN. YREF = .0000 IN.
 BREF = 939.7000 IN. ZREF = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 AIRRON = .000 BOFLAP = -14.290
 SPDRK = 999.990

RUN NO. 0/0 BNVL = 7.16 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CH	CLM	CT	CYN	CEL	CA	CAB	CL	CD	L/D
1.943	-1.370	.04110	.00050	.00050	.00110	-.00060	.13650	.03170	.04800	.13620	.30430
1.943	1.690	.18980	-.00090	-.00090	.00140	-.00040	.13740	.03130	.12250	.14100	.06930
1.943	1.843	.21160	-.00090	-.00090	.00150	-.00050	.13650	.03060	.03060	.15020	1.34490
1.943	8.000	.30870	-.00200	-.00200	.00100	-.00050	.13680	.02960	.02960	.16460	1.74070
1.943	8.190	.39170	-.00400	-.00400	.00120	-.00060	.13350	.02950	.36940	.16970	1.84200
1.943	10.390	.47680	-.00550	-.00550	.00130	-.00060	.13220	.03060	.44510	.21600	2.06020
1.943	12.590	.56960	-.00790	-.00790	.00140	-.00050	.13200	.03210	.52610	.29290	2.06020
1.943	14.750	.65510	-.00780	-.00780	.00160	-.00060	.13050	.03270	.60040	.29260	2.05130
1.943	16.990	.73740	-.00750	-.00750	.00170	-.00040	.13010	.03410	.68630	.34590	1.96470
1.943	19.150	.84360	-.00680	-.00680	.00180	-.00060	.12640	.03490	.75560	.39620	1.90690
1.943	21.250	.93960	-.00450	-.00450	.00190	-.00060	.12670	.03670	.82960	.45970	1.80690
1.943	10.390	.47680	-.00550	-.00550	.00140	-.00060	.13160	.03110	.44400	.21510	2.04370
1.943	GRADIENT	.04029	-.00600	-.00600	.00009	-.00007	-.00032	-.00021	.03609	.00267	-.24760

RUN NO. 0/0 BNVL = 4.12 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CH	CLM	CT	CYN	CEL	CA	CAB	CL	CD	L/D
2.990	-1.490	.00890	-.00450	.00080	.00030	-.00030	.10520	.01740	.00390	.10520	.03340
2.990	1.460	.05390	-.00530	.00100	.00040	-.00000	.10560	.01770	.05130	.10490	.46910
2.990	3.380	.11440	-.00740	-.00130	.00060	-.00020	.10150	.01810	.10600	.10640	.99600
2.990	5.990	.17440	-.01030	-.00060	.00030	-.00040	.09930	.01820	.16390	.11590	1.41460
2.990	7.660	.23950	-.01540	-.00300	.00050	-.00020	.09750	.01820	.22410	.12650	1.74340
2.990	9.750	.30700	-.01770	-.00310	.00060	-.00010	.09630	.01820	.29630	.14690	1.94600
2.990	11.620	.37500	-.02250	-.00400	.00070	-.00010	.09540	.01810	.34740	.17070	2.03440
2.990	13.970	.44540	-.02660	-.00420	.00070	-.00010	.09490	.01810	.40950	.19950	2.03250
2.990	16.000	.52220	-.03100	-.00490	.00090	-.00010	.09490	.01810	.47560	.25320	2.02290
2.990	18.050	.59620	-.03790	-.00750	.00100	-.00020	.09420	.01820	.53930	.27570	1.95560
2.990	20.010	.67360	-.04140	-.00740	.00120	-.00040	.09420	.01830	.60060	.31910	1.89210
2.990	9.750	.30950	-.01720	-.00270	.00100	-.00030	.09440	.01820	.66670	.14750	1.95660
2.990	GRADIENT	.02769	-.00073	-.00003	.00013	.00002	-.00092	.00017	.02607	.00061	.24011

DATE 28 SEP 75

TABULATED SOURCE DATA - NSFC TWT 574

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NSFC 574 (CM48) ORB 139 W/ALT NOISE

(R07075) (17 SEP 75)

REFERENCE DATA

REF = 2690.0000 SQ.FT. XMRP = 836.7000 IN.
LREF = 474.0000 IN. YMRP = .0000 IN.
BREF = 936.7000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
A11LON = .000 BOFLAP = -14.250
SPDORR = 999.990

RUN NO. 0/ 0 RN/L = 4.93 GRADIENT INTERVAL = -3.00/ 5.00

WACH	ALPHA	CH	CLM	CY	CYN	CEL	CA	CAB	CL	CO	L/D
4.999	-1.510	-01940	-01710	-00110	.00070	-00040	.07820	.00370	-01870	.07840	-23950
4.999	1.430	.02220	-01770	-00190	.00040	-00010	.07690	.00400	.02090	.07740	.27040
4.999	3.440	.06910	-01470	-00010	.00060	-00030	.07580	.00390	.06440	.07960	.90770
4.999	5.470	.11450	-01770	-00100	.00070	-00060	.07430	.00410	.10690	.06490	1.23980
4.999	7.500	.16490	-01510	-00200	.00050	-00050	.07300	.00400	.13400	.09390	1.63910
4.999	9.560	.22380	-01640	-00250	.00050	-00060	.07190	.00420	.21620	.10760	1.93510
4.999	11.600	.27960	-02000	-00290	.00050	-00070	.07250	.00420	.25950	.12730	2.03670
4.999	13.600	.34140	-02160	-00410	.00050	-00050	.07350	.00420	.31450	.15160	2.07220
4.999	15.700	.41290	-02590	-00480	.00050	-00090	.07480	.00440	.37710	.16360	2.05180
4.999	17.130	.46800	-02800	-00410	.00060	-00090	.07600	.00420	.43530	.22110	1.96640
4.999	19.670	.55610	-03470	-00690	.00110	-00090	.07740	.00430	.49940	.26060	1.91450
4.999	9.560	.22630	-01600	-00190	.00050	-00040	.07250	.00440	.2110	.10910	1.93400
GRADIENT		.02241	.00061	.00026	-.00072	.00002	-.00061	.00015	.02104	.00036	.26495

(ZET075) (00 SEP 73)

NSFC 574 (0448) ORB 139 W/ALT N08E

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
AIIKON = .000 BOFLAP = -14.250
SPDRK = 999.990

REFERENCE DATA

WREF = 2000.0000 50.00 PT. XREF = 838.7000 IN.
LREF = 474.8000 IN. YREF = .0000 IN.
WREF = 938.7000 IN. ZREF = .0000 IN.
SCALE = .0040

RUN NO. 01 0 RWL = 6.57 GRADIENT INTERVAL = -5.00/ 5.00

WREF	ALPHA	CN	CLM	CY	CYN	CL
1.195	-1.240	.10070	.01740	.00190	.00090	.10140
1.195	1.850	.22800	-.00720	-.00240	.00100	.22010
1.195	4.040	.34930	-.02710	.00100	.00100	.33390
1.195	6.240	.46070	-.04030	-.00450	.00120	.43840
1.195	8.430	.57100	-.05310	-.00700	.00200	.53910
1.195	10.690	.67270	-.06590	-.01020	.00220	.66790
1.195	12.930	.83970	-.09390	-.01180	.00260	.77920
1.195	15.140	.95740	-.10410	-.01210	.00300	.87830
1.195	17.330	1.05760	-.11030	-.01450	.00320	.95740
1.195	19.490	1.15190	-.10960	-.02370	.00410	1.02740
1.195	21.570	1.24300	-.11090	-.01670	.00410	1.09250
1.195	10.700	.71710	-.07590	-.00920	.00220	.87200
1.195	.05807	.05807	-.01039	-.02006	.00002	.05477

DATE 28 SEP 73

TABULATED SOURCE DATA - MSFC TWT 574

(067076) (17 SEP 73)

MSFC 574(0446) ORB 139 WALT NOSE

REFERENCE DATA

SRZF = 2880.0000 50.FT. XMRP = 836.7000 IN.
 LRZF = 474.9000 IN. YMRP = .0000 IN.
 BRZF = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

BETA = .000 ELEVTR = .000
 AILRON = .000 BOPAP = -14.250
 SPDRK = 999.990

PARAMETRIC DATA

RUN NO. QV D RV/L = 3.94 GRADIENT INTERVAL = -5.00/ 5.00

MACN	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	20.820	.67820	-.04140	-.00980	.00000	-.00060	.09360	.01830	.60180	.32670	1.84130
2.990	22.620	.75910	-.04770	-.01110	.00010	-.00060	.09370	.01820	.66460	.37850	1.75530
2.990	24.090	.84450	-.05370	-.01160	-.00010	-.00060	.09460	.01820	.72770	.43680	1.65620
2.990	26.760	.93030	-.06420	-.01240	-.00030	-.00060	.09480	.01820	.78770	.50390	1.56320
2.990	28.870	1.02270	-.07330	-.01350	-.00040	-.00140	.09590	.01820	.84920	.57790	1.46930
2.990	31.000	1.12410	-.08260	-.01410	.00040	-.00110	.09660	.01870	.91370	.66180	1.36070
2.990	33.110	1.21380	-.09170	-.01540	.00100	-.00120	.09740	.01890	.98340	.74460	1.29380
2.990	35.160	1.30780	-.10190	-.01560	.00030	-.00100	.09790	.01930	1.01270	.83330	1.21520
2.990	37.300	1.40610	-.11220	-.01710	.00080	-.00130	.09790	.01960	1.05910	.93020	1.13830
2.990	39.400	1.50360	-.12160	-.01810	.00130	-.00140	.09780	.01970	1.09730	1.02620	1.06720
2.990	41.350	1.59350	-.13340	-.01960	.00130	-.00120	.09750	.01960	1.13170	1.12610	1.00490
2.990	GRADIENT	.04431	-.00444	-.00045	.00007	-.00003	.00023	.00009	.02587	.03875	-.04080

RUN NO. QV D RV/L = 4.93 GRADIENT INTERVAL = -5.00/ 5.00

MACN	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.959	20.260	.57040	-.03750	-.00780	.00030	-.00100	.07940	.00390	.50760	.27210	1.86560
4.959	22.230	.64610	-.04160	-.00860	.00010	-.00110	.07980	.00390	.56790	.31830	1.76370
4.959	24.260	.73140	-.04740	-.00890	.00110	-.00130	.08160	.00360	.63320	.37500	1.66660
4.959	26.310	.81780	-.05490	-.00990	.00050	-.00140	.08270	.00400	.69630	.43670	1.59450
4.959	28.370	.90830	-.06350	-.01160	.00090	-.00140	.08430	.00410	.75910	.50390	1.50030
4.959	30.440	1.00300	-.07130	-.01140	.00130	-.00160	.08660	.00430	.82080	.58290	1.40790
4.959	32.500	1.09850	-.07930	-.01180	.00140	-.00130	.08660	.00430	.87670	.66500	1.32130
4.959	34.540	1.19410	-.08830	-.01360	.00150	-.00150	.08940	.00430	.93230	.75160	1.24030
4.959	36.640	1.29170	-.09930	-.01540	.00130	-.00190	.09190	.00460	.98220	.84390	1.16380
4.959	38.660	1.38610	-.10350	-.01450	.00210	-.00160	.09170	.00450	1.02460	.93800	1.09240
4.959	40.630	1.47450	-.11550	-.0162	.00120	-.00220	.09210	.00430	1.05900	1.03610	1.02600
4.959	GRADIENT	.04464	-.00392	-.00041	.00006	-.00004	.00070	.00003	.02761	.03756	-.04176

NSFC 574 (0448) ORG 139 W/ALT NOSE

(080777) (17 SEP 73)

REFERENCE DATA

SREF = 2890.0000 34.171. YMRP = 636.7000 IN.
 LMRP = 474.0000 IN. YMRP = .0000 IN.
 SREF = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = 15.000
 AILRON = .000 BDFLAP = 15.750
 SPDRK = 999.990

RUN NO. 281/ 0 RV/L = 5.04 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.603	-1.250	.42900	-.18900	-.00360	.00240	.00340	.10960	.04090	.42550	.10770	3.95020
.603	1.750	.52650	-.18950	-.00970	.00300	.00410	.10420	.04040	.50320	.11930	4.23360
.603	3.750	.60610	-.18370	-.01170	.00350	.00390	.09730	.03890	.59830	.13720	4.33970
.603	5.690	.71220	-.19240	-.01180	.00320	.00220	.08970	.03850	.69930	.16170	4.32490
.603	8.020	.85010	-.20710	-.01150	.00340	.00140	.08260	.04090	.83020	.20050	4.13910
.603	10.100	.98430	-.20160	-.01230	.00290	.00230	.10240	.04090	.83260	.25870	3.33140
.603	12.240	.99680	-.20680	-.01360	.00230	.00240	.10130	.04250	.93260	.31040	3.06870
.603	14.350	1.09220	-.20050	-.01870	.00190	.01240	.10060	.04700	1.03320	.36810	2.81670
.603	16.470	1.22570	-.17760	-.00600	.00070	.00070	.09820	.04990	1.14550	.44120	2.59600
.603	18.560	1.32710	-.19670	-.00290	.00090	-.00090	.10010	.05870	1.22670	.51770	2.36790
.603	20.590	1.36650	-.17190	-.00300	.00060	-.00960	.10440	.06590	1.24470	.57820	2.15270
.603	10.100	.86660	-.20210	-.01230	.00310	.00230	.10250	.04030	.85490	.25650	3.33260
GRADIENT		.04469	.00061	-.00194	.00222	.00212	-.00305	-.00030	.04279	.00732	.10087

RUN NO. 285/ 0 RV/L = 6.30 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.904	-1.180	.39070	-.20180	-.00780	.00270	.00320	.12940	.04310	.39110	.12830	3.04740
.904	1.910	.51440	-.21450	-.00670	.00280	.00120	.13070	.04340	.50980	.14790	3.44690
.904	4.080	.62830	-.22480	-.00780	.00290	.00140	.13170	.04170	.61530	.17590	3.49840
.904	6.200	.71560	-.22760	-.00620	.00270	-.00020	.13690	.04400	.69680	.21345	3.26440
.904	8.360	.81070	-.23750	-.01040	.00270	.00230	.14410	.04610	.78110	.26030	2.99820
.904	10.570	.93660	-.25500	-.01310	.00280	.00240	.15090	.04910	.89320	.32020	2.78940
.904	12.790	1.05590	-.26950	-.01720	.00350	.00420	.15770	.05520	.99480	.38740	2.56780
.904	14.940	1.16680	-.27640	-.01610	.00320	.00470	.16410	.06290	1.08690	.46010	2.36250
.904	17.080	1.25360	-.27220	-.01470	.00210	.00050	.17160	.07210	1.14780	.53240	2.15550
.904	19.190	1.27920	-.24220	-.00290	-.00060	-.00050	.17820	.08530	1.14950	.58880	1.95220
.904	21.180	1.25970	-.19170	-.00810	-.00010	-.00050	.17990	.09860	1.14690	.63740	1.79910
.904	10.570	.93300	-.25240	-.01310	.00250	.00250	.14870	.04980	.88980	.31740	2.80340
GRADIENT		.04553	-.00542	-.00020	.00205	-.00042	.00054	-.00033	.05284	.01124	.10323

DATE 20 SEP 73

TABULATED SOURCE DATA - NSFC TWT 374
NSFC 574 (0448) ORB 139 W/ALT NOSE

(R07077) (17 SEP 73)

PARAMETRIC DATA

BETA = .000 ELEVTR = 15.000
AILRON = .000 BDFLAP = 13.750
SPDRK = 999.990

REFERENCE DATA

SRCP = 2000.0000 94.47. XGRP = 636.7000 IN.
LREF = 474.6000 IN. YGRP = .0000 IN.
BREF = 936.7000 IN. ZGRP = .0000 IN.
SCALE = .0040

RUN NO. 279/ 0 RN/L = 6.67 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
1.198	-.070	.33950	-.17250	-.00110	.00180	.00060	.22740	.06610	.33960	.22700	1.49710
1.198	2.010	.47620	-.20400	-.00380	.00220	.00100	.23310	.06590	.46770	.24970	1.67290
1.198	4.230	.60620	-.23060	-.00560	.00250	.00000	.23610	.06640	.59110	.28040	2.10440
1.198	6.430	.74090	-.25430	-.00850	.00260	.00070	.24040	.06880	.70930	.32190	2.20360
1.198	8.640	.89950	-.26650	-.01090	.00300	.00190	.24050	.06920	.81350	.36700	2.21620
1.198	10.890	.99960	-.28560	-.01380	.00340	.00220	.24390	.07220	.92570	.42650	2.17040
1.198	13.120	1.10920	-.29490	-.01600	.00400	.00210	.24840	.07500	1.02380	.49390	2.07280
1.198	15.380	1.21310	-.29690	-.01730	.00400	.00140	.25180	.07740	1.10340	.56330	1.95800
1.198	17.500	1.31750	-.29880	-.02010	.00470	.00080	.25670	.08220	1.17940	.64060	1.84090
1.198	19.700	1.40410	-.29710	-.02180	.00500	.00000	.25650	.08630	1.23540	.71490	1.72800
1.198	21.720	1.47670	-.28680	-.02250	.00490	.00050	.25440	.08630	1.27770	.76290	1.63200
1.198	10.890	.99960	-.28260	-.01340	.00350	.00240	.24340	.07110	.92680	.42620	2.17410
1.198	.06269	.06269	-.01354	-.00105	.00016	-.00014	.00202	.00207	.05817	.01243	.14062

GRADIENT

RUN NO. 186/ 0 RN/L = 7.23 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
1.943	-.300	.14480	-.08060	-.00070	.00140	.00220	.16440	.03680	.14370	.16370	.89000
1.943	1.790	.23170	-.09640	-.00220	.00160	.00170	.16680	.03670	.22650	.17380	1.30290
1.943	3.900	.31990	-.11250	-.00310	.00170	.00020	.16830	.03420	.30770	.18970	1.62210
1.943	6.090	.42060	-.13130	-.00330	.00140	.00000	.17260	.03290	.40010	.21650	1.84750
1.943	8.260	.51210	-.14700	-.00470	.00160	.00010	.17450	.03220	.48170	.24630	1.95530
1.943	10.480	.61320	-.16330	-.00650	.00180	.00030	.17580	.03240	.57100	.28440	2.00710
1.943	12.670	.70220	-.17520	-.00770	.00180	.00020	.17630	.03340	.64640	.32580	1.98390
1.943	14.600	.76810	-.18490	-.00890	.00210	.00020	.17630	.03400	.71700	.37170	1.92830
1.943	17.060	.90290	-.20260	-.01090	.00240	.00000	.18100	.03480	.81000	.43610	1.84890
1.943	19.260	1.01270	-.21980	-.01200	.00260	.00030	.18470	.03630	.89510	.50840	1.76040
1.943	21.360	1.11560	-.23490	-.01350	.00270	.00050	.18810	.03600	.97040	.58200	1.66730
1.943	10.430	.59090	-.15730	-.00660	.00210	.00000	.17920	.03230	.55030	.27440	2.00500
1.943	.04169	.04169	-.00759	-.00057	.00007	.00000	.00093	-.00062	.03856	.00620	.17410

GRADIENT

MSFC 574 (0A48) ORB 139 W/ALT NOSE

(R07077) (17 SEP 73)

REFERENCE DATA

SREF = 2690.0000 50. FT. YMRP = 836.7000 IN.
 LREF = 474.0000 IN. YMRP = .0000 IN.
 SREF = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = 15.000
 AIRLON = .000 BDFLAP = 13.750
 SPDRK = 999.990

RUN NO. 207/ 0 RN/L = 4.09 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	-.475	.05160	-.04610	.00020	.00000	-.00010	.11770	.01910	.05260	.11730	.44900
2.990	1.490	.10770	-.05360	-.00070	.00070	-.00020	.11900	.01930	.10450	.12180	.65810
2.990	3.540	.17470	-.06210	-.00160	.00070	-.00010	.11880	.01950	.16700	.12940	1.29060
2.990	5.610	.24480	-.07040	-.00210	.00060	-.00010	.11900	.01960	.23130	.14230	1.62330
2.990	7.690	.31240	-.08000	-.00260	.00060	-.00030	.12000	.01960	.29350	.16160	1.82700
2.990	9.770	.38560	-.08970	-.00400	.00110	-.00020	.12240	.01970	.35920	.18610	1.93010
2.990	11.860	.46240	-.09970	-.00430	.00130	-.00010	.12430	.01970	.42690	.21690	1.96760
2.990	13.970	.53850	-.11160	-.00570	.00120	-.00030	.12710	.01960	.49220	.25270	1.94730
2.990	16.020	.62580	-.12370	-.00610	.00130	.00000	.13000	.01920	.56360	.29770	1.89940
2.990	18.100	.70790	-.13700	-.00770	.00120	-.00030	.13320	.01940	.63140	.34660	1.82160
2.990	20.060	.79400	-.15090	-.00810	.00180	-.00020	.13680	.01920	.69890	.40100	1.74290
2.990	9.790	.39030	-.08970	-.00410	.00120	-.00010	.12220	.01970	.36360	.18690	1.94660
2.990	.03071	-.00330	-.00027	-.00022	.00017	.00000	.00027	.00010	.00002	.00002	.20986

GRADIENT

RUN NO. 206/ 0 RN/L = 4.92 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.959	-.520	.01450	-.04040	.00250	.00130	-.00040	.08660	.00570	.01530	.08630	.17720
4.959	1.440	.05400	-.04470	.00110	.00110	-.00060	.08660	.00590	.05160	.08790	.58930
4.959	3.470	.10640	-.04940	.00140	.00140	-.00040	.08840	.00600	.10290	.09480	1.08480
4.959	5.480	.16240	-.05590	-.00090	.00140	-.00080	.08730	.00610	.15330	.10240	1.49720
4.959	7.510	.22040	-.06370	-.00060	.00140	-.00060	.08950	.00620	.20670	.11760	1.75770
4.959	9.570	.28340	-.07370	-.00110	.00140	-.00060	.09160	.00620	.26420	.13730	1.92100
4.959	11.630	.35530	-.08440	-.00110	.00180	-.00050	.09610	.00630	.32860	.16380	1.98120
4.959	13.610	.42580	-.09560	-.00240	.00140	-.00080	.09970	.00620	.39050	.19630	1.98690
4.959	15.720	.50660	-.10850	-.00320	.00140	-.00080	.10400	.00620	.45940	.23740	1.93480
4.959	17.740	.59010	-.12230	-.00260	.00150	-.00080	.10910	.00610	.52680	.28380	1.86290
4.959	19.690	.66930	-.13720	-.00180	.00240	-.00070	.11570	.00610	.59110	.33450	1.76680
4.959	20.990	.74860	-.15360	-.00000	.00130	-.00020	.09120	.00620	.67050	.37330	1.97000
4.959	.02368	-.04227	-.00027	-.00027	-.00002	.00000	.00046	.00000	.02219	.00010	.22673

GRADIENT

DATE 28 SEP 73
 TABULATED SOURCE DATA - MSFC TWT 574
 MSFC 574(0A48) ORB 139 W/ALT NOSE

(R07078) (17 SEP 73)

PARAMETRIC DATA

BETA = .000 ELEVTR = 15.000
 AIRLON = .000 BDFLAP = 15.750
 SFCBRK = 999.990

REFERENCE DATA

SREF = 2890.0000 SQ.FT. XMRP = 836.7000 IN.
 LREF = 474.8000 IN. YMRP = .0000 IN.
 BREF = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

RUN NO. 212/ 0 RN/L = 4.07 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	20.850	.80290	-.15360	-.01150	.00030	-.00080	.13830	.01910	.70240	.41270	1.70200
2.990	22.680	.89240	-.16970	-.01230	.00030	-.00070	.14270	.01930	.76850	.47550	1.61590
2.990	24.750	.96920	-.18720	-.01260	.00020	-.00030	.14730	.01910	.83670	.54870	1.52670
2.990	26.840	1.09070	-.20610	-.01450	.00040	-.00070	.15260	.01940	.91420	.62870	1.43810
2.990	28.920	1.19100	-.22480	-.01990	.00100	-.00100	.15650	.01950	.96670	.71570	1.35570
2.990	31.030	1.29780	-.24420	-.01670	.00080	-.00080	.16300	.02000	1.02770	.81880	1.27080
2.990	33.160	1.40030	-.25990	-.01790	.00130	-.00080	.16730	.02030	1.08070	.91670	1.19270
2.990	35.210	1.50270	-.27790	-.01860	.00130	-.00080	.17150	.02020	1.12870	1.00640	1.12110
2.990	37.360	1.61540	-.29970	-.01950	.00150	-.00080	.17620	.02040	1.17700	1.12050	1.05040
2.990	39.480	1.74170	-.33710	-.02100	.00230	-.00110	.18320	.02080	1.22810	1.24850	.96360
2.990	41.480	1.87440	-.36990	-.02190	.00240	-.00090	.18690	.02120	1.28040	1.38160	.92670
2.990	31.060	1.50130	-.24400	-.01680	.00060	-.00090	.16220	.02020	1.03100	.81050	1.27200
GRADIENT		.05069	-.01984	-.00049	.00010	.00001	.00235	.00010	.02742	.14618	-.03350

RUN NO. 213/ 0 RN/L = 4.93 GRADIENT INTERVAL = -5.00/ 5.16

MACH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.959	20.280	.69130	-.14340	-.00920	.00080	-.00130	.11610	.00560	.60750	.35040	1.73330
4.959	22.250	.76110	-.15790	-.00950	.00140	-.00130	.12370	.00560	.67530	.41220	1.63610
4.959	24.300	.87650	-.17590	-.01130	.00140	-.00120	.12920	.00570	.74560	.47860	1.55790
4.959	26.340	.97670	-.19330	-.01170	.00170	-.00140	.13600	.00570	.81490	.55540	1.46720
4.959	28.390	1.07720	-.21270	-.01360	.00180	-.00150	.14160	.00580	.88020	.63690	1.38250
4.959	30.480	1.18190	-.22170	-.01350	.00220	-.00180	.14750	.00580	.94370	.72670	1.29650
4.959	32.590	1.28730	-.24920	-.01480	.00180	-.00130	.15480	.00590	1.00160	.82330	1.21660
4.959	34.570	1.38750	-.26410	-.01590	.00230	-.00170	.16140	.00590	1.05070	.92020	1.14170
4.959	36.670	1.49590	-.28350	-.01790	.00250	-.00210	.16680	.00590	1.10000	1.02730	1.07080
4.959	38.710	1.60080	-.30070	-.02800	.00340	-.00210	.17240	.00600	1.14100	1.13610	1.00430
4.959	40.670	1.69920	-.31570	-.01830	.00290	-.00180	.17780	.00600	1.17270	1.24710	.94410
4.959	30.480	1.18820	-.23060	-.01360	.00220	-.00150	.14520	.00590	.94680	.73010	1.29880
GRADIENT		.04969	-.01857	-.00066	.00010	.00004	.00204	.00010	.02014	.14207	-.03684

DATE 28 SEP 75

TABULATED SOURCE DATA - NSFC TWT 574

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NSFC 574(0448) ORF 139 W/ALY NOSE

(087079) (17 SEP 75)

REFERENCE DATA

SREF = 2890.0000 94.0 FT. XMRP = 838.7000 IN.
 LREF = 474.8000 10. YMRP = .0000 IN.
 BREF = 938.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

BETA = .000 ELEVTR = -20.000
 AIRRON = .000 BOFLAP = .000
 SPCBRK = 999.999

PARAMETRIC DATA

RUN NO. 282/ 0 RN/L = 4.80 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.990	-1.540	.13090	.00480	-.00030	.00200	.08340	.03030	-.21070	.08540	-2.48780	
.990	1.440	.12880	.00400	.00020	.00210	.08150	.03100	-.11990	.07830	-1.52850	
.990	3.520	.12660	.00300	.00200	.00120	.07740	.03090	-.02440	.07600	-.32130	
.990	5.610	.12310	.00010	.00030	.00090	.06830	.03130	.07410	.07590	.97570	
.990	7.710	.11970	-.00400	.00110	.00070	.05740	.03110	.18780	.08340	2.23110	
.990	9.790	.11620	-.00330	.00060	.00080	.05680	.03160	.30160	.11140	2.75670	
.990	11.900	.09650	-.00330	.00070	.00050	.05820	.03440	.39700	.14320	2.77270	
.990	13.970	.09890	-.00650	.00030	.00040	.05720	.03600	.48520	.17970	2.69910	
.990	16.060	.10460	-.00550	-.00260	.00190	.05810	.03780	.57670	.22450	2.56890	
.990	18.140	.11010	-.00240	-.00120	-.00280	.05760	.03820	.66420	.27830	2.36680	
.990	20.130	.11410	-.00230	-.00240	-.00320	.05790	.04220	.75320	.33780	2.22860	
.990	9.790	.10000	-.00340	.00030	.00060	.05820	.03340	.30510	.11170	2.73140	
GRADIENT	.04724	-.00106	-.00044	.00007	-.00020	-.00148	.00015	.04589	-.00231	.52907	

RUN NO. 283/ 0 RN/L = 5.89 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.996	-1.600	.16530	.00460	-.00060	.00200	.11780	.03390	-.22110	.11010	-2.00660	
.996	1.500	.14210	.00110	-.00040	.00270	.10370	.03420	-.08720	.10140	-.85980	
.996	3.700	.11510	-.00290	.00030	.00150	.10170	.03390	.03630	.10570	.55210	
.996	5.890	.09460	-.00350	.00070	.00030	.10100	.03460	.19180	.12140	1.58010	
.996	8.040	.07750	-.00580	.00130	.00040	.09940	.03380	.30860	.14400	2.14280	
.996	10.220	.05340	-.00930	.00140	.00290	.10210	.03460	.43330	.18180	2.38240	
.996	12.400	.04120	-.01110	.00130	.00370	.09990	.03600	.54320	.22180	2.44850	
.996	14.580	.03470	-.00890	.00090	.00400	.10020	.03950	.64650	.27160	2.38010	
.996	16.720	.04990	-.00950	-.00190	.00400	.10390	.04410	.73810	.33030	2.23440	
.996	18.840	.04990	-.01100	-.00030	.00090	.10750	.05040	.78270	.38010	2.05540	
.996	20.880	.07010	-.01270	.00030	-.00180	.11190	.05850	.82570	.43490	1.89870	
.996	10.210	.05440	-.00930	.00140	.00300	.09990	.03410	.43380	.17980	2.41270	
GRADIENT	.06880	-.01175	-.00174	.00026	-.00012	-.00141	-.00000	.06499	-.00100	.59542	

MSFC 574 (0448) ORB 139 W/ALT NOSE

(R07079) (17 SEP 73)

REFERENCE DATA

SPCF = 2690.0000 30.FT. AHP = 836.7000 IN.
LREF = 474.0000 IN. YHP = .0000 IN.
BREF = 936.7000 IN. ZHP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = -20.000
AILRON = .000 BDPLAP = .000
SPCRK = 999.990

RUN NO. 284/ 0 RN/L = 5.06 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
1.197	-1.450	-1.06720	.12560	.00190	.00000	.00010	.20280	.06400	-.06530	.20350	-.42040
1.197	1.830	.04560	.09700	.00050	.00040	-.00020	.20420	.06400	.03970	.20350	.19350
1.197	3.920	.18700	.06810	-.00160	.00050	-.00070	.20350	.06370	.17260	.21370	.81040
1.197	6.110	.31300	.04710	-.00350	.00050	-.00090	.20250	.06830	.28960	.23470	1.23410
1.197	8.340	.43560	.03020	-.00650	.00070	-.00070	.20040	.07000	.40200	.26160	1.53660
1.197	10.540	.56180	.01480	-.01250	.00240	.00060	.19830	.06970	.51600	.19830	1.73260
1.197	12.780	.66460	-.00760	-.01280	.00220	-.00010	.19560	.07070	.62440	.34220	1.82420
1.197	14.970	.80660	-.01540	-.01500	.00290	-.00010	.19300	.07310	.72930	.39300	1.84620
1.197	17.120	.91590	-.02250	-.01740	.00340	-.00050	.19110	.07660	.81640	.45260	1.80730
1.197	19.340	1.01200	-.02130	-.01750	.00330	-.00160	.18950	.08000	.89210	.51400	1.73540
1.197	21.430	1.09240	-.01710	-.02010	.00380	-.00140	.18500	.08620	.95000	.56960	1.66760
1.197	10.550	.56590	.01510	-.01100	.00210	.00070	.19780	.06940	.52010	.29810	1.74440
1.197	.06273	.06273	-.01315	-.00760	.00011	-.00016	.00011	.00039	.05904	.00262	.27912

RUN NO. 189/ 0 RN/L = 7.22 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
1.945	-1.450	-.03020	.04770	.00170	.00050	-.00060	.15000	.03330	-.02910	.15020	-.19370
1.943	1.610	.05660	.03310	.00020	.00070	-.00070	.14740	.03380	.03440	.14900	.36530
1.945	3.760	.14720	.01960	-.00260	.00090	-.00070	.14320	.03260	.13750	.15260	.90120
1.945	5.950	.24120	.00620	-.00210	.00070	-.00060	.14190	.03290	.22520	.16620	1.35510
1.945	8.130	.33110	-.00490	-.00290	.00080	-.00050	.14110	.03240	.30790	.16650	1.65060
1.945	10.310	.41020	-.01230	-.00440	.00110	-.00050	.13640	.03280	.37920	.20760	1.82600
1.945	12.500	.49610	-.01690	-.00580	.00120	-.00050	.13420	.03330	.45720	.23690	1.91350
1.945	14.660	.59620	-.02220	-.00680	.00090	-.00050	.13470	.03590	.54450	.26100	1.93190
1.945	16.920	.69190	-.03040	-.00830	.00130	-.00060	.13340	.03700	.62310	.32900	1.69360
1.945	19.100	.78780	-.03650	-.00980	.00130	-.00070	.13130	.03750	.70140	.36190	1.63630
1.945	21.170	.87130	-.04160	-.01030	.00110	-.00090	.12750	.03830	.76640	.43360	1.76720
1.945	10.300	.40630	-.01190	-.00470	.00140	-.00060	.13420	.03300	.37790	.20510	1.84250
1.945	.04213	.04213	-.00667	-.00059	.00009	-.00002	-.00162	-.00017	.03957	.00056	.25099

STABULATED SOURCE DATA - MSPC TWT 574

REFC 474 (QA48) CRB 139 W/ALT NCSE

BAROMETRIC DATA

BETA	=	.100)	CLEVTK	=	-20.000)
AILRON	=	.000)	EXPFLAP	=	.000)
SPCRK	=	999.990)			

REFERENCE DATA

BRCT	=	2000.0000	90.00	10000	=	438.7000	IN.
LCCT	=	474.0000	IN.	10000	=	10000	IN.
ORCT	=	936.7000	IN.	10000	=	10000	IN.
SCALE	=			10000	=		

----- interval = -1.00/ 5.00

ALPHA	Q1	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
0	-0.06450	0.01200	-0.00070	-0.00010	-0.00030	.010750	.011760	-.02340	-.10770	-.21760
1	-2.2.990	0.01040	-0.00020	0.00030	-.00040	.10630	.10620	.02680	.10710	.26920
2	2.990	0.00700	-0.00150	0.00030	-.00010	.10250	.01620	.06540	.10790	.79170
3	0.9190	0.00260	-0.00060	-0.00010	-.00040	.10030	.01840	.14280	.11460	1.24430
4	1.5330	0.00060	-0.00020	0.00030	-.00040	.09920	.01670	.19630	.12670	1.56520
5	2.1340	-0.00090	-0.00030	0.00020	-.00070	.09620	.01640	.25920	.17960	1.79660
6	2.7990	-0.00220	-0.00060	0.00040	-.00100	.09790	.01690	.31920	.16690	1.91200
7	3.4670	-0.00460	-0.00190	0.00030	-.00090	.09530	.01630	.37990	.19200	1.97660
8	4.1490	-0.00790	-0.00350	0.00060	-.00260	.09490	.01660	.44250	.19090	1.96090
9	4.6990	-0.01190	-0.00730	0.00090	-.00270	.09390	.01600	.50370	.22340	1.91920
10	5.6250	-0.01320	-0.01030	0.00090	-.00360	.09360	.01680	.56450	.30550	1.84740
20	6.6350	-0.01750	-0.01360	0.00110	-.00360	.09820	.01640	.68100	.41500	1.62070
30	7.743	-0.02470	-0.01910	0.00120	-.00360	.09820	.01610	.82720	.55005	.23296

9.5.99 CONFIDENCE INTERVAL = -5.02 / 5.01

ALPHA	ON	QLM	CT	CYN	CBL	CA	CAB	CL	CD	L.S.
4.959	-0.02960	-0.0910	-0.0170	-0.0070	-0.0030	0.06120	0.00540	-0.02910	0.06040	-0.36160
4.959	0.01210	-0.00780	0.00050	0.00050	-0.00350	0.07660	0.00540	0.00100	0.07690	0.12910
4.959	0.05570	0.00410	0.01130	0.00070	-0.00030	0.07640	0.00560	0.05110	0.06100	0.64100
4.959	0.01170	-0.00660	-0.00080	0.00050	-0.00060	0.07440	0.00560	0.09420	0.06370	1.12410
4.959	0.10170	-0.00050	0.00020	0.00020	-0.00030	0.07560	0.00560	0.14090	0.09260	1.51740
4.959	0.15160	-0.00030	0.00020	0.00020	-0.00030	0.07360	0.00570	0.16960	0.10670	1.77590
4.959	0.20470	-0.00050	0.00020	0.00070	-0.00030	0.07250	0.00560	0.24020	0.12540	1.94650
4.959	0.26010	-0.00750	0.00270	0.00030	-0.00040	0.07390	0.00560	0.29310	0.14700	1.99300
4.959	0.31950	-0.00690	0.00110	0.00060	-0.00030	0.07390	0.00570	0.35340	0.17690	1.99730
4.959	0.36610	-0.01140	0.00250	0.00220	-0.00070	0.07470	0.00570	0.40830	0.21200	1.92560
4.959	0.45350	-0.01170	0.00240	0.00070	-0.00060	0.07750	0.00570	0.46610	0.24620	1.67790
4.959	0.52240	-0.01610	0.00040	0.00040	-0.00090	0.07680	0.00570	0.46610	0.24620	1.67790
4.959	0.52240	-0.00610	0.00020	0.00060	-0.00030	0.07290	0.00570	0.19110	0.10160	1.60160
4.959	0.52165	0.01127	0.00020	0.00020	-0.00030	0.07290	0.00570	0.19110	0.10160	1.60160
GRADIENT						-0.000196	0.000195	0.000195	-0.000195	0.23403

111

TABULATED SOURCE DATA - NSFC TWT 574

DATE 28 SEP 75

(R07080) (17 SEP 75)

NSFC 574 (0448) ORB 139 W/ALT NCSE

PARAMETRIC DATA

BETA = .000 CLEVTR = -20.000
ATIRON = .000 SDFLAP = .000
SPDRBK = 999.990

REFERENCE DATA

REF = 2690.0000 90.00 IN. WRP = 836.7000 IN.
LREF = 474.8000 IN. YWRP = .0000 IN.
BREF = 936.7000 IN. ZWRP = .0000 IN.
SCALE = .0040

RUN NO. 196/ 0 RW/L = 4.08 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	ON	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
2.990	20.800	.63970	-.01580	-.01050	-.00040	-.00090	.09440	.01860	.36180	.31210	1.00000
2.990	22.800	.71330	-.02020	-.01120	.00000	-.00060	.09440	.01860	.82410	.36210	1.72330
2.990	24.800	.79660	-.02590	-.01120	-.00070	-.00100	.09440	.01860	.64440	.41830	1.03820
2.990	26.770	.88210	-.03200	-.01290	-.00080	-.00110	.09410	.01930	.74520	.48120	1.34890
2.990	28.640	.96960	-.03910	-.01450	-.00010	-.00160	.09420	.01660	.80390	.59090	1.46040
2.990	30.960	1.06000	-.04560	-.01510	-.00040	-.00120	.09380	.01860	.86170	.62560	1.37520
2.990	33.030	1.15260	-.05350	-.01610	-.00010	-.00150	.09370	.01840	.91500	.70740	1.29350
2.990	35.110	1.24570	-.05930	-.01630	-.00010	-.00120	.09380	.01840	.96500	.79330	1.21630
2.990	37.270	1.33990	-.06390	-.01760	.00020	-.00170	.09330	.01870	1.01620	.86310	1.13940
2.990	39.340	1.42690	-.07230	-.01830	.00060	-.00190	.09280	.01860	1.04660	.97850	1.06970
2.990	41.390	1.51770	-.08150	-.01910	.00090	-.00150	.09240	.01860	1.07820	1.00940	1.00940
2.990	30.970	1.06770	-.04590	-.01810	-.00010	-.00130	.09360	.01860	.86730	.62960	1.37700
2.990	.04264		-.00317	-.00044	.00006	-.00004	-.00009	-.00001	.02516	.03876	-.03682

RUN NO. 197/ 0 RW/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	ON	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
4.999	20.250	.54210	-.01650	-.00680	.00020	-.00070	.08040	.01420	.48070	.26310	1.02670
4.999	22.250	.61810	-.01990	-.00690	.00010	-.00100	.08150	.01420	.54130	.30930	1.75010
4.999	24.270	.69890	-.02460	-.00760	.00070	-.00120	.08290	.01410	.60260	.36280	1.68090
4.999	26.300	.77990	-.02890	-.00930	.00030	-.00100	.08360	.01420	.66270	.42180	1.57290
4.999	28.360	.86980	-.03300	-.00910	.00070	-.00090	.08660	.01430	.72470	.48660	1.48320
4.999	30.440	.96060	-.03820	-.01080	.00060	-.00130	.08660	.01430	.78430	.56140	1.39710
4.999	32.490	1.05340	-.04370	-.01180	.00080	-.00130	.08780	.01430	.84120	.64000	1.31430
4.999	34.530	1.14350	-.05130	-.01230	.00060	-.00160	.08910	.01430	.89150	.72170	1.23320
4.999	36.630	1.23760	-.05760	-.01470	.00080	-.00170	.08990	.01430	.94090	.80980	1.16170
4.999	38.660	1.32620	-.06340	-.01510	.00110	-.00190	.08930	.01420	.97970	.89630	1.09050
4.999	40.820	1.41390	-.07000	-.01610	.00120	-.00190	.08930	.01390	1.01490	.98650	1.02670
4.999	30.440	.96240	-.03750	-.01060	.00010	-.00140	.08670	.01420	.78560	.56230	1.39720
4.999	.04315		-.00266	-.00046	.00004	-.00007	.00004	-.00000	.02669	.03586	-.03968

DATE 28 SEP 73

TABULATED SOURCE DATA - MSFC TWT 574
MSFC 574 (0448) ORB 139 W/ALT NOISE

(R87081) (17 SEP 73)

PARAMETRIC DATA

SECTA = .000 ELEVTR = -40.000
ALLRCH = .070 BOFLAP = -14.250
SPCRK = 999.990

REFERENCE DATA

SRZF = 2890.0000 98.171. XMRP = 838.7000 IN.
LREF = 474.8000 IN. YMRP = .0000 IN.
BRZF = 938.7000 IN. ZMRP = .0000 IN.
SCALE = .0040

RUN NO. 185/ 0 RV/L = 7.21 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
1.849	-1.540	-1.0440	.00640	.00250	.00040	-.00020	.18250	.03440	-.10270	.18350	-.58030
1.849	1.530	-.01080	.06650	.00150	.00040	-.00060	.17470	.03420	-.01540	.17450	-.08890
1.849	3.990	.06890	.05140	-.00070	.00110	-.00060	.16720	.03590	.07590	.17250	.44080
1.849	5.870	.17970	.03780	-.00200	.00120	-.00070	.16170	.03500	.16220	.17920	.90330
1.849	8.060	.27590	.02600	-.00350	.00110	-.00070	.15840	.03400	.25060	.19550	1.28150
1.849	10.280	.36410	.01780	-.00450	.00090	-.00060	.15550	.03530	.35080	.21790	1.51700
1.849	12.450	.44140	.01390	-.00480	.00110	-.00060	.15250	.03570	.39680	.24390	1.63260
1.849	14.990	.53590	.00910	-.00650	.00140	-.00050	.14970	.03750	.47890	.27940	1.71360
1.849	16.840	.63920	.00250	-.00680	.00160	-.00050	.14940	.03690	.56830	.32640	1.79030
1.849	19.070	.75890	-.00360	-.01070	.00150	-.00040	.14800	.04060	.64810	.38070	1.70220
1.849	21.150	.83260	-.00720	-.01150	.00210	-.00060	.14620	.04120	.72380	.43770	1.65830
1.849	10.280	.36430	.01750	-.00450	.00110	-.00060	.15500	.03560	.35090	.21740	1.52150
GRADIENT		.04322	-.00827	-.00076	.00017	-.00009	-.00357	.00026	.04222	-.00254	.23659

RUN NO. 220/ 0 RV/L = 4.09 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	-1.530	-.06590	.03380	.00200	-.00010	-.00050	.12260	.01720	-.06480	.12340	-.32940
2.990	1.440	-.00780	.02980	-.00070	-.00030	-.00060	.11920	.01740	-.01090	.11970	-.09080
2.990	3.510	.05770	.02410	-.00060	.00020	-.00040	.11490	.01750	.05060	.11820	.42810
2.990	5.560	.12180	.01980	-.00060	.00040	-.00050	.11270	.01790	.11010	.12330	.69310
2.990	7.630	.18890	.01850	-.00090	.00050	-.00040	.11060	.01840	.17010	.13460	1.26370
2.990	9.750	.25180	.01640	-.00120	.00050	-.00060	.10870	.01850	.22990	.14970	1.53580
2.990	11.810	.31820	.01500	-.00150	.00050	-.00060	.10730	.01850	.28950	.17010	1.70120
2.990	13.830	.38770	.01360	-.00170	.00040	-.00060	.10590	.01890	.35120	.19560	1.79550
2.990	15.970	.46110	.01020	-.00320	.00040	-.00060	.10630	.01870	.41400	.22910	1.60690
2.990	18.050	.53580	.00600	-.00620	.00060	-.00060	.10330	.01890	.47740	.26430	1.60630
2.990	19.980	.60580	.00490	-.00760	.00060	-.00060	.10210	.01890	.53440	.30300	1.76330
GRADIENT		.03080	-.00240	-.00099	.00013	-.00003	-.00196	.00007	.02657	-.00128	.23814

DATE 28 SEP 73

TABULATED SOURCE DATA - W3FC TWT 574

(R87081) (17 SEP 73)

W3FC 574 (0448) CRB 139 W/LT NOSE

REFERENCE DATA

SRCT = 2890.0000 28. FT. 1980 = 838.7000 IN.
 LREF = 474.8000 IN. 1980 = .0000 IN.
 SRCT = 936.7000 IN. 2980 = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = -40.000
 AIRCON = .000 BOFLAP = -14.250
 SPDRK = 999.990

RUN NO. 221/ 0 RN/L = 4.92 GRADIENT INTERVAL = -5.00/ 5.00

W3FC	ALPHA	CH	CLN	CY	CYN	CBL	CA	CAB	CL	CC	L/D
4.999	-0.520	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	.09580	.00370	-.04090	.09680	-.63360
4.999	1.420	-0.0000	.00000	.00000	.00000	.00000	.09220	.00400	-.02040	.09180	-.22280
4.999	3.430	.00000	.00000	.00000	.00000	.00000	.08860	.00400	.02770	.09040	.30700
4.999	5.480	.00000	.00000	.00000	.00000	.00000	.08490	.00410	.07330	.09250	.61420
4.999	7.500	.00000	.00000	.00000	.00000	.00000	.08280	.00410	.12490	.09970	1.25240
4.999	9.530	.00000	.00000	.00000	.00000	.00000	.08180	.00430	.17610	.11260	1.56330
4.999	11.590	.00000	.00000	.00000	.00000	.00000	.08080	.00430	.22830	.12940	1.76470
4.999	13.590	.00000	.00000	.00000	.00000	.00000	.08190	.00430	.28370	.13280	1.85820
4.999	15.690	.00000	.00000	.00000	.00000	.00000	.08180	.00430	.33840	.18020	1.86370
4.999	17.780	.00000	.00000	.00000	.00000	.00000	.08290	.00450	.40190	.21550	1.86450
4.999	19.880	.00000	.00000	.00000	.00000	.00000	.08340	.00450	.45660	.25190	1.81330
4.999	21.980	.00000	.00000	.00000	.00000	.00000	.08130	.00440	.51010	.11260	1.59550
4.999	24.030	.00000	.00000	.00000	.00000	.00000	.08177	.00008	.02244	-.00146	.23826

GRADIENT

DATE 28 SEP 73

(187502) (17 SEP 73)

TABULATED SOURCE DATA - NSFC TWT 574
NSFC 574 (0448) ORS 139 WALT NOSE

PARAMETRIC DATA

BETA = .000 ELEVTR = -40.000
AULRON = .000 BOPLAP = -14.250
SPORRK = 999.990

REFERENCE DATA

SRCP = 2000.0000 SR.PT. = 836.7000 IN.
LREF = 474.8000 IN. YREF = .0000 IN.
SRCP = 936.7000 IN. ZREF = .0000 IN.
SCALE = .0040

RUN NO. 215/ 0 RV/L = 4.06 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	20.500	.61140	.00410	-.01090	.00010	-.00120	.10260	.01910	.53610	.31130	1.72190
2.990	22.500	.60970	.00130	-.01000	.00010	-.00110	.10260	.01920	.59460	.39830	1.63610
2.990	24.500	.76660	-.00220	-.01060	-.00030	-.00120	.10260	.01910	.63360	.41330	1.56150
2.990	26.740	.83070	-.00640	-.01200	.00010	-.00120	.10260	.01910	.71330	.47470	1.50250
2.990	28.630	.93600	-.01220	-.01400	.00040	-.00160	.10190	.01690	.77070	.54070	1.42940
2.990	30.920	1.02650	-.01560	-.01360	.00030	-.00130	.10240	.01690	.82760	.61590	1.34370
2.990	33.060	1.11470	-.02080	-.01470	.00060	-.00160	.10210	.01690	.87640	.69360	1.26610
2.990	35.150	1.20160	-.02430	-.01490	.00060	-.00130	.10220	.01670	.92400	.77490	1.19230
2.990	37.250	1.29170	-.02780	-.01680	.00060	-.00190	.10190	.01680	.96660	.86280	1.12020
2.990	39.330	1.37890	-.03240	-.01750	.00100	-.00220	.10070	.01690	1.00270	.95190	1.05330
2.990	41.300	1.46490	-.03630	-.01770	.00130	-.00220	.09960	.01690	1.03460	1.04160	.99300
2.990	43.300	1.54990	-.04030	-.01430	.00110	-.00130	.10170	.01690	.83060	.61700	1.34660
2.990	45.300	1.63410	-.04410	-.00041	.00006	-.00005	-.00012	-.00014	.02440	.03546	-.03589

RUN NO. 214/ 0 RV/L = 4.90 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.999	20.250	.58320	-.00070	-.00720	-.00010	-.00160	.06460	.00400	.46330	.26140	1.77230
4.999	22.210	.56940	.00030	-.00650	.00010	-.00130	.06620	.00410	.51310	.30270	1.69460
4.999	24.760	.66860	.00020	-.00610	.00010	-.00060	.06990	.00360	.57370	.35410	1.62020
4.999	26.300	.74960	-.00320	-.00560	.00020	-.00090	.06930	.00400	.63250	.41250	1.53390
4.999	28.350	.83480	-.00440	-.00590	.00010	-.00100	.09190	.00410	.69100	.47740	1.44740
4.999	30.430	.92230	-.00660	-.01090	.00060	-.00110	.09380	.00420	.74770	.54610	1.36420
4.999	32.500	1.01010	-.01090	-.01270	.00040	-.00120	.09500	.00420	.80070	.62300	1.28320
4.999	34.520	1.09700	-.01310	.370	.00030	-.00110	.09630	.00430	.84910	.70120	1.21160
4.999	36.620	1.16910	-.01690	-.01460	.00080	-.00150	.09690	.00410	.89660	.77710	1.13900
4.999	38.660	1.27930	-.01930	-.01450	.00140	-.00140	.09790	.00410	.93770	.87560	1.07090
4.999	40.610	1.36070	-.02290	-.01610	.00100	-.00140	.10000	.00390	.96730	.96220	1.01520
4.999	42.610	1.44210	-.02690	-.01160	-.00020	-.00120	.09310	.00420	.75300	.53040	1.36610
4.999	44.610	1.52610	-.03060	-.01160	-.00020	-.00001	.09077	.00000	.02544	.03471	-.03610

DATE 20 SEP 75

TABULATED SOURCE DATA - WSFC TUT 574

WSFC 574(0448) CRB 139 W/500 IN. GLOWE

(R07003) (17 SEP 75)

REFERENCE DATA

SREF = 2890.0000 26.171. XREF = 836.7000 IN.
 LREF = 474.8000 IN. YREF = .0000 IN.
 BREF = 936.7000 IN. ZREF = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 AIRLON = .000 BDFLAP = .000
 SPDRK = 999.999

RUN NO. 14/ 0 RVL = 4.99 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	ON	CLM	CY	CYN	CEL	CA	CAS	CL	CD	L/D
.996	-1.430	.00900	.01010	.00010	.00110	-.00130	.04010	.02590	.01030	.00010	.17160
.996	1.930	.10890	.00870	-.00170	.00080	-.00140	.05910	.02640	.10490	.06190	1.89290
.996	3.640	.20970	.00090	-.00370	.00130	-.00190	.05510	.02690	.20390	.04630	3.01080
.996	5.710	.31230	-.00280	-.00570	.00160	-.00180	.04690	.02720	.30810	.07770	3.93990
.996	7.810	.42140	-.00770	-.01080	.00190	-.00170	.03980	.02690	.41110	.09670	4.89030
.996	9.890	.51210	-.00990	-.00970	.00180	-.00050	.04540	.02670	.49870	.13870	3.74170
.996	11.960	.58480	-.00510	-.00870	.00140	.00090	.04990	.03170	.56190	.17000	3.30310
.996	14.030	.64510	-.00030	-.00980	.00070	-.00190	.05150	.03560	.63270	.21130	2.89420
.996	16.160	.69240	-.00510	-.01310	.00040	-.00010	.04630	.03910	.79620	.26760	2.82300
.996	18.270	.68080	-.00090	-.02270	.00090	-.00030	.04690	.04090	.89400	.33310	2.97990
.996	20.290	1.03130	.00160	-.02030	.00050	-.00270	.04990	.04760	.92000	.40450	2.34640
.996	9.890	.51640	-.00940	-.01120	.00180	-.00080	.04540	.02950	.50090	.13350	3.75190
GRADIENT		.04686	-.00225	-.00093	.00005	-.00005	-.00123	.00724	.04780	.00212	.69342

RUN NO. 15/ 0 RVL = 6.34 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	ON	CLM	CY	CYN	CEL	CA	CAS	CL	CD	L/D
.999	-1.390	.03030	.00850	-.00400	.00120	-.00330	.07500	.03020	.03090	.07480	.41290
.999	1.880	.13170	.00490	-.00170	.00060	-.00440	.07400	.02810	.12990	.07760	1.66430
.999	3.840	.25530	-.00900	-.00690	.00160	-.00410	.07510	.02690	.24970	.09210	2.71070
.999	5.990	.36260	-.01540	-.00970	.00200	-.00190	.07720	.03040	.35260	.11460	3.07720
.999	8.110	.44870	-.01850	-.01020	.00180	-.00170	.08030	.03180	.43290	.14290	3.02930
.999	10.240	.53960	-.02450	-.01110	.00130	-.00130	.08390	.03400	.51500	.17640	2.86720
.999	12.410	.63590	-.03440	-.01420	.00110	.00160	.08660	.03810	.62200	.22560	2.75640
.999	14.630	.60560	-.05450	-.01210	.00130	.00160	.09350	.04200	.73560	.29470	2.57070
.999	16.910	.93780	-.06270	-.01720	.00130	-.00160	.09900	.04940	.86930	.36320	2.36040
.999	19.970	1.05070	-.06450	-.01370	.00040	-.00240	.10710	.05850	.94000	.43610	2.15560
.999	20.900	1.06690	-.04300	-.01560	.00000	-.00310	.11170	.06690	.97680	.49410	1.97730
.999	10.230	.54240	-.02560	-.01200	.00140	.00130	.08470	.03410	.51910	.16000	2.86310
GRADIENT		.05323	-.00416	-.00070	.00010	-.00019	.00003	-.00219	.03176	.00412	.54235

DATE 29 SEP 73
 LABULATED SOURCE DATA - NSFC TWT 374
 NSFC 374(CN48) ORS 139 W/500 IN. GLOWE

(RSTH03) (17 SEP 73)

PARAMETRIC DATA

BETA = .000 ELEVIR = .000
 AIRLON = .000 BOPLAP = .000
 SPDRK = 999.999

REFERENCE DATA

SRCP = 2690.0000 36.17. 100P = 836.7000 IN.
 LREF = 474.8000 IN. 100P = .0000 IN.
 BRCP = 836.7000 IN. 200P = .0000 IN.
 SCALE = .0040

RUN NO. 16/ 0 RV/L = 6.79 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/O
1.202	.07970	.00140	-.00180	.00130	-.00150	.17460	.05760	.06070	.17410	.48340
1.202	.21040	-.02480	-.00370	.00120	-.00160	.17750	.05350	.02470	.18410	1.11170
1.202	.33470	-.04950	-.00440	.00150	-.00240	.17790	.05560	.32140	.20100	1.96670
1.202	.45600	-.06220	-.00370	.00170	-.00260	.17740	.05750	.43410	.22370	1.92260
1.202	.56600	-.07260	-.00660	.00190	-.00180	.17530	.05820	.53620	.25650	2.06960
1.202	.69910	-.09110	-.01270	.00290	.00260	.17520	.05970	.65470	.30140	2.17220
1.202	.82920	-.10940	-.01460	.00260	.00160	.17670	.06160	.76680	.35680	2.15370
1.202	.95660	-.12820	-.01410	.00260	-.00110	.17910	.06360	.87720	.42200	2.07650
1.202	1.06620	-.13680	-.01710	.00260	-.00170	.18150	.06940	.96860	.49110	1.96650
1.202	1.16560	-.14790	-.02030	.00420	-.00060	.18160	.07270	1.03630	.55990	1.85420
1.202	1.25510	-.14680	-.02370	.00440	-.00080	.18050	.07600	1.10110	.62860	1.75100
1.202	1.32670	-.09130	-.01250	.00290	.00080	.17930	.05930	.65620	.30220	2.17760
1.202	.05667	-.01075	-.00065	.00205	-.00021	.00076	-.00041	.05557	.00622	.26190

RUN NO. 17/ 0 RV/L = 7.21 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/O
1.202	.01910	-.01580	-.00170	.00090	-.00140	.14140	.03290	.02030	.14120	.14370
1.202	.10640	-.02780	-.00280	.00130	-.00140	.14140	.03310	.10240	.14430	.70970
1.202	.19550	-.04130	-.00410	.00150	-.00140	.14100	.03400	.16580	.15350	1.21030
1.202	.29130	-.05420	-.00460	.00140	-.00130	.14060	.03150	.27510	.17020	1.61660
1.202	.37760	-.06470	-.00550	.00140	-.00130	.13620	.02990	.35420	.19120	1.60170
1.202	.47000	-.07510	-.00670	.00150	-.00090	.13710	.03040	.43780	.21920	1.99700
1.202	.55570	-.08440	-.00820	.00170	-.00140	.13440	.03100	.51350	.25140	2.04230
1.202	.62860	-.08960	-.00840	.00220	-.00150	.13020	.03310	.57530	.28460	2.01980
1.202	.73130	-.09940	-.01020	.00240	-.00160	.13220	.03430	.66160	.33650	1.95430
1.202	.83120	-.10690	-.01260	.00260	-.00170	.13120	.03580	.74280	.39340	1.87650
1.202	.92680	-.11810	-.01430	.00260	-.00180	.12670	.03620	.81790	.45430	1.79960
1.202	.44660	-.07170	-.00640	.00170	-.00130	.13120	.03050	.41630	.20180	1.99400
1.202	.04190	-.00616	-.00057	.00014	.00000	-.00010	.000126	.03931	.00293	.25320

GRADIENT

SATE 28 SEP 73

TABULATED SOURCE DATA - MSFC TWT 574

MSFC 574 (0448) ORB 139 W/500 IN. GLOWE

PAGE 156

(R07063) (17 SEP 73)

REFERENCE DATA

SREF = 2880.0000 88.47. XREF = 838.7000 IN.
 LREF = 474.8000 IN. YREF = .0000 IN.
 BREF = 936.7000 IN. ZREF = .0000 IN.
 SCALE = .0040

BETA = .000 ELEVTR = .000
 AIRLON = .000 BOFLAP = .000
 SPOBRK = 999.990

PARAMETRIC DATA

RUN NO. 10/ 0 RW/L = 4.07 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	CH	CLH	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.980	-.00060	-.00020	-.00120	.00070	-.00100	.10640	.01760	-.01960	.10660	-.18890
2.980	.00120	-.00090	-.00100	.00120	-.00090	.10590	.01800	.00060	.10650	.26640
2.980	.00090	-.00040	-.00020	.00100	-.00020	.10370	.01820	.00440	.10910	.77410
2.980	.19300	-.00090	-.00020	.00110	-.00120	.10120	.01820	.14240	.11560	1.23170
2.980	.21700	-.00030	-.00090	.00100	-.00140	.09910	.01800	.20220	.12710	1.59070
2.980	.28910	-.04300	-.00380	.00110	-.00150	.09740	.01790	.28460	.14410	1.83370
2.980	.35660	-.04620	-.00450	.00110	-.00170	.09650	.01800	.32960	.16740	1.96890
2.980	.42930	-.05450	-.00470	.00130	-.00190	.09610	.01810	.39400	.19820	2.00770
2.980	.50300	-.06020	-.00620	.00140	-.00140	.09510	.01810	.45640	.22960	1.99460
2.980	.56300	-.06770	-.00790	.00140	-.00160	.09450	.01830	.52320	.27020	1.94330
2.980	.66100	-.07820	-.00860	.00120	-.00190	.09330	.01840	.56920	.31360	1.87820
2.980	.76970	-.08280	-.00400	.00120	-.00130	.09750	.01790	.26930	.14590	1.85700
2.980	.02767	-.00061	-.00123	.00017	-.00005	-.00066	.00010	.02600	.00063	.23939

RUN NO. 9/ 6 RW/L = 4.50 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	CH	CLH	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.829	-.03790	-.03910	.00150	.00120	-.00110	.06370	.00460	-.03720	.06400	-.44290
4.829	.00440	-.03320	.00060	.00080	-.00090	.06160	.00300	.00240	.06170	.02960
4.829	.04670	-.03470	-.00220	.00080	-.00100	.07900	.00310	.04360	.06160	.35620
4.829	.08430	-.03460	.00090	.00140	-.00120	.07630	.00300	.06660	.06570	1.01630
4.829	.14670	-.03700	-.00140	.00130	-.00170	.07490	.00310	.13560	.09340	1.45160
4.829	.20180	-.03970	-.00230	.00140	-.00190	.07430	.00320	.16660	.10670	1.74660
4.829	.26010	-.04290	-.00290	.00140	-.00190	.07310	.00330	.24010	.12360	1.93900
4.829	.32330	-.04920	-.00420	.00090	-.00160	.07300	.00330	.29900	.14730	2.02630
4.829	.38660	-.04930	-.00490	.00090	-.00190	.07210	.00320	.36070	.17620	2.04700
4.829	.46720	-.05530	-.00560	.00150	-.00190	.07350	.00320	.42270	.21210	1.99230
4.829	.53660	-.06060	-.00690	.00150	-.00200	.07360	.00340	.46240	.25040	1.92610
4.829	.60330	-.06910	-.00820	.00140	-.00150	.07420	.00340	.48620	.10690	1.76190
4.829	.02182	.00079	-.00094	-.00010	.00002	-.00119	.00006	.02030	-.00059	.24766

(R07004) (17 SEP 73)

TABULATED SOURCE DATA - NSFC TWT 574
NSFC 574 (0448) CRB 139 W/570 IN. GLOVE

DATE 28 SEP 73

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
AIRLON = .000 BOFLAP = .000
SPORIK = 999.999

REFERENCE DATA

SRF = 2990.0000 30-PT. XMRP = 836.7000 IN.
LREF = 474.0000 IN. YMRP = .0000 IN.
SRF = 936.7000 IN. ZMRP = .0000 IN.
SCALE = .0000

RUN NO. 13/ 0 RNL = 4.52 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.999	20.950	1.11360	-.01450	-.03350	.00150	-.00200	.03130	.05030	1.02160	.44810	2.26970
.999	22.950	1.21710	-.01120	-.03110	.00060	-.00590	.03470	.05800	1.09990	.52390	2.09920
.999	24.950	1.19990	.00420	-.03090	.01090	-.02830	.06300	.06540	1.06140	.56350	1.88430
.999	26.950	1.11410	.00610	-.03130	.00720	-.00290	.06920	.06990	.96220	.56570	1.70070
.999	28.910	1.12210	.03340	-.02500	.00000	-.00380	.07310	.07750	.94580	.60830	1.55470
.999	30.960	.80560	.04660	-.02380	-.01160	-.00460	.07340	.08160	.99580	.66360	1.45660
.999	33.030	1.20730	.04260	-.02240	-.00200	-.00590	.07020	.08580	1.04070	.76100	1.36740
.999	35.110	1.35110	.03420	-.02670	.00120	-.00700	.06800	.08910	1.06610	.83280	1.28010
.999	37.170	1.41400	.03360	-.02160	.00140	-.00970	.06460	.08740	1.08770	.90580	1.20070
.999	39.230	1.47790	.04340	-.01500	-.00180	-.01010	.06150	.08230	1.10370	.98230	1.12530
.999	41.190	1.52210	.06360	-.01690	-.00070	-.00900	.05360	.09730	1.10870	1.04440	1.06150
.999	30.960	1.19600	.05530	-.02370	-.00140	-.00460	.07300	.08260	.98640	.68110	1.45120
.999	.01959	.00306	.00077	-.00024	-.00003	-.00003	.00021	.00021	.00021	.02927	-.00583

RUN NO. 11/ 0 RNL = 4.06 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	20.950	.66320	-.07660	-.01170	.00040	-.00230	.09440	.01860	.56930	.32240	1.82800
2.990	22.950	.74450	-.06380	-.01200	.00060	-.00240	.09400	.01860	.65140	.37240	1.74920
2.990	24.950	.83350	-.09210	-.01250	.00050	-.00230	.09460	.01860	.71790	.43390	1.65440
2.990	26.950	.92290	-.10050	-.01300	.00010	-.00260	.09440	.01870	.78150	.49990	1.56330
2.990	28.690	1.01410	-.10910	-.01560	.00040	-.00260	.09520	.01900	.84220	.57270	1.47050
2.990	30.940	1.10660	-.11790	-.01770	.00130	-.00310	.09600	.01950	.89970	.65140	1.36100
2.990	33.040	1.20450	-.12620	-.01960	.00140	-.00330	.09630	.01980	.93710	.73760	1.29760
2.990	35.140	1.29930	-.13650	-.01900	.00070	-.00290	.09600	.01980	1.00720	.82640	1.21870
2.990	37.240	1.39670	-.14830	-.02200	.00200	-.00380	.09640	.01990	1.05510	.92320	1.14260
2.990	39.340	1.49550	-.15970	-.02310	.00400	-.00400	.09570	.02000	1.09570	1.02200	1.07210
2.990	41.330	1.59040	-.17350	-.02520	.00610	-.00440	.09510	.02010	1.13070	1.12250	1.00170
2.990	30.950	1.11220	-.11760	-.01780	.00150	-.00300	.09560	.01960	.91460	.65410	1.38260
2.990	.04475	.00458	-.00458	-.00068	-.00010	-.00010	.00011	.00008	.02640	.03671	-.04012

DATE 28 SEP 73

TABULATED SOURCE DATA - MSFC TWT 574

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MSFC 574 (0448) CRB 139 W/500 IN. GLOVE

(R07084) (17 SEP 73)

REFERENCE DATA

8007 = 8080.0000 56. FT. 200P = 838.7000 IN.
 1007 = 474.0000 IN. 200P = .0000 IN.
 2007 = 936.7000 IN. 200P = .0000 IN.
 SCALE = .0040

BETA = .000 ELEVTR = .000
 AIRRON = .000 BDFLAP = .000
 SFDRK = 999.999

PARAMETRIC DATA

RUN NO. 12/ 0 RVL = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

WADN	ALPHA	CM	CLM	CY	CYN	COL	CA	CAB	CL	CC	L/D
4.999	20.280	.55790	-.05970	-.00940	.00040	-.00260	.07650	.00480	.49690	.26500	1.67480
4.999	22.180	.63360	-.07030	-.00940	.00030	-.00230	.07660	.00490	.55700	.31210	1.78480
4.999	24.880	.71760	-.07400	-.01040	.00040	-.00270	.07910	.00500	.62180	.36710	1.69360
4.999	26.310	.80830	-.08470	-.01220	-.00070	-.00290	.08030	.00510	.68690	.43030	1.67060
4.999	28.370	.90360	-.08220	-.01320	.00030	-.00270	.08270	.00510	.75320	.50110	1.50700
4.999	30.420	.99760	-.10100	-.01360	.00080	-.00280	.08350	.00520	.81800	.57740	1.41670
4.999	32.480	1.09060	-.11230	-.01670	.00060	-.00340	.08560	.00530	.87400	.65600	1.32830
4.999	34.540	1.19290	-.12260	-.01800	.00100	-.00370	.08870	.00540	.93260	.74900	1.24520
4.999	36.600	1.29120	-.13350	-.01960	.00160	-.00420	.08830	.00540	.98360	.84080	1.17500
4.999	38.660	1.38610	-.14330	-.02090	.00190	-.00440	.09100	.00530	1.02700	.93830	1.09450
4.999	40.610	1.47400	-.15290	-.02120	.00180	-.00440	.09260	.00530	1.05860	1.02980	1.02760
4.999	30.420	.99760	-.10120	-.01250	.00030	-.00270	.08420	.00540	.81770	.57800	1.41460
4.999	GRADIENT	.04562	-.00459	-.00066	.00008	-.00011	.00078	.00003	.02833	.03793	-.04198

TABULATED SOURCE DATA - NSFC TWT 574

DATE 26 SEP 73

(REVISED) (16 JUL 75)

NSFC 574(0448) ORB 1398 W/H19

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 ATLON = .000 BOFLAP = .000
 SPOBRK = 999.999 TRIMER = 19.000

REFERENCE DATA

SREF = 2890.0000 36. FT. XMRP = 836.7000 IN.
 LREF = 474.0000 IN. YMRP = .0000 IN.
 SREF = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

RUN NO. 901/ 0 RN/L = 5.01 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	CN	CLM	CY	CYN	CSL	CA	CAB	CL	CD	L/D
.001	-0.490	-0.0630	.04390	.00190	.00090	.00260	.05930	.02930	-.05780	.05980	-.96660
.001	1.540	.03670	.05090	.00030	.00130	.00280	.05750	.02930	.05710	.05860	.83430
.001	3.630	.14370	.05800	-.00080	.00130	.00520	.05320	.03010	.14270	.06230	2.27700
.001	5.710	.23240	.06500	-.00390	.00130	.00270	.04450	.03010	.24680	.06940	3.55170
.001	7.800	.36320	.07090	-.00710	.00190	.00230	.03350	.03090	.35710	.06460	4.21920
.001	9.940	.49070	.07260	-.00690	.00390	.00310	.02670	.03210	.47870	.11110	4.30740
.001	12.060	.61360	.07920	-.00740	.00730	.00130	.02830	.03410	.59430	.15600	3.80940
.001	14.150	.73760	.07070	-.00980	.00040	.00210	.02560	.03540	.70890	.20520	3.45460
.001	16.240	.86320	.08270	-.01640	.00140	.00230	.02630	.04410	.78490	.25580	3.06850
.001	18.340	.93460	.09190	-.02350	.00240	.00460	.02630	.05060	.87870	.31940	2.75110
.001	20.300	1.02770	.10000	-.02550	.00330	.00330	.02320	.05060	.95580	.37850	2.52470
.001	9.940	.48560	.07310	-.00870	.00100	.00290	.02660	.03180	.47370	.11010	4.30120
.001	.04932	.00342	.00065	-.00010	.00010	.00015	-.00148	.00012	.04850	.00061	.76726

GRADIENT

RUN NO. 902/ 0 RN/L = 6.31 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	CN	CLM	CY	CYN	CSL	CA	CAB	CL	CD	L/D
.001	-0.480	-0.0600	.06890	-.00510	.00210	.00330	.07180	.02980	-.08020	.07250	-1.10620
.001	1.540	.03720	.06860	-.00890	.00250	.00380	.07240	.02970	.03520	.07340	.48030
.001	3.780	.18510	.06860	-.01080	.00250	.00320	.07420	.03100	.15980	.08500	1.88010
.001	5.980	.28750	.06640	-.01190	.00200	.00270	.07210	.03190	.27640	.10160	2.74000
.001	8.120	.40230	.06190	-.01270	.00220	.00200	.07400	.03240	.38760	.13010	2.98080
.001	10.330	.52630	.05390	-.01480	.00230	.00110	.07610	.03410	.50610	.16970	2.98220
.001	12.520	.65490	.04510	-.01720	.00310	-.00020	.07590	.03620	.62290	.21610	2.68190
.001	14.740	.79460	.04390	-.01900	.00340	-.00020	.07530	.04210	.74930	.27510	2.72360
.001	16.950	.92500	.04610	-.01470	.00550	-.00020	.07830	.04770	.86190	.34480	2.49950
.001	19.140	1.01670	.06700	-.01560	-.00110	-.00020	.07860	.05500	.93460	.40790	2.29130
.001	21.170	1.09250	.09470	-.01160	-.00070	-.00010	.08470	.06430	.98810	.47360	2.08630
.001	10.320	.52290	.05430	-.01660	.00260	.00070	.07510	.03470	.50100	.16760	2.98890
.001	.05771	.00000	.00000	-.00113	.00004	-.00007	.00057	.00029	.05633	.00297	.69963

DATE 20 SEP 73

TABULATED SOURCE DATA - MSFC TUT 574

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MSFC 574 (0448) ORB 1398 W/M19

(R07J085) (10 JUL 73)

REFERENCE DATA

SREF = 2000.0000 36.17. YMRP = 636.7000 IN.
LREF = 474.8000 IN. YMRP = .0000 IN.
BREF = 936.7000 IN. ZMRP = .0000 IN.
SCALE = .0040

BETA = .000 ELEVTR = .000
AIRLON = .000 BDFLAP = .000
SPDBRK = 999.990 TRIMER = 19.000

PARAMETRIC DATA

RUN NO. 503/ 0 R/V/L = 6.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
1.196	-1.340	.01230	-.04790	-.00370	.00270	.00270	.16960	.05600	.01330	.16950	.07890
1.196	-1.710	.14320	-.02740	-.00560	.00260	.00250	.16930	.05630	.13800	.17350	.79380
1.196	3.990	.26430	-.00690	-.00760	.00290	.00180	.16780	.05580	.27190	.16700	1.45400
1.196	6.250	.41620	-.00640	-.00780	.00290	.00250	.16440	.05580	.39580	.20860	1.69710
1.196	8.430	.53740	-.01240	-.00910	.00270	.00180	.16100	.05640	.50790	.23610	2.13590
1.196	10.690	.66780	-.01790	-.01240	.00310	.00180	.15770	.05660	.62670	.27890	2.24690
1.196	12.960	.80930	-.03030	-.01210	.00250	.00150	.15360	.05900	.75420	.33130	2.27650
1.196	15.200	.94360	-.03950	-.01460	.00250	.00220	.15270	.06620	.87260	.39540	2.20870
1.196	17.420	1.05620	-.04000	-.01540	.00250	-.00240	.14940	.06810	.96290	.45910	2.09800
1.196	19.660	1.17500	-.03660	-.01670	.00240	-.00130	.14750	.07110	1.05690	.53420	1.97830
1.196	21.720	1.27780	-.03620	-.01680	.00230	-.00070	.14570	.07360	1.13310	.60640	1.86240
1.196	10.700	.67010	-.01640	-.01140	.00310	.00250	.15770	.05790	.62920	.27940	2.25130
GRADIENT		.06260	-.07846	-.07090	.00705	-.00021	-.00047	-.00005	.05970	.00416	.31704

RUN NO. 517/ 0 R/V/L = 7.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
1.954	-1.460	-.00740	.00450	-.00320	.00130	.00090	.13970	.03210	-.00620	.13970	-.04500
1.954	1.990	.07860	-.00130	-.00180	.00150	.00080	.13780	.03240	.07470	.13990	.53410
1.954	3.600	.17970	-.00660	-.00250	.00160	.00060	.13910	.03200	.16940	.13060	1.12410
1.954	5.990	.26780	-.01100	-.00330	.00160	.00040	.13540	.03140	.25210	.16260	1.55020
1.954	8.170	.36190	-.01450	-.00450	.00140	.00030	.13140	.02990	.33910	.18150	1.86770
1.954	10.360	.45040	-.01620	-.00550	.00140	.00040	.12710	.02990	.42010	.20610	2.03780
1.954	12.590	.53500	-.01730	-.00640	.00130	.00040	.12200	.03150	.49530	.23570	2.10230
1.954	14.780	.62700	-.01900	-.00790	.00150	.00030	.11710	.03210	.57630	.27130	2.10830
1.954	17.000	.73430	-.01900	-.00920	.00160	.00050	.11550	.03220	.66840	.32320	2.05500
1.954	19.260	.84330	-.02060	-.01040	.00150	.00020	.11370	.03440	.75830	.38540	1.96710
1.954	21.530	.93650	-.02310	-.01150	.00160	.00020	.11070	.03710	.83200	.44590	1.87430
1.954	10.360	.44710	-.01530	-.00520	.00160	.00030	.12490	.03010	.41720	.20340	2.05100
GRADIENT		.04376	-.00260	-.00054	.00007	-.00007	-.00013	-.00003	.04124	.00259	.27434

PARAMETRIC DATA

BETA	=	.000	ELEVTR	=	.000
AILRON	=	.000	BDFLAP	=	.000
SDFBRK	=	999.990	TRIMER	=	19.000

REFERENCE DATA

YARP =	2000.0000	20. FT.	YARP =	836.7000	IN.
LARP =	474.8000	IN.	YARP =	.0000	IN.
ZARP =	936.7000	IN.	ZARP =	.0000	IN.
SCALE =		.0040			

1.18 CRABANT INTERVAL = -5.00/ 5.00

ALPHA	CN	CLM	CY	C ¹ N	CBL	CA	CAB	CL	CD	L/D
-.490	-.02743	-.01290	.00110	.00030	.00330	.11030	.01750	-.02640	.11030	-.22960
2.990	.02760	-.01060	.00120	.00080	.00060	.10790	.01760	.02490	.10660	.22930
1.440	.06790	-.00750	.00030	.00090	.00030	.10460	.01800	.06130	.10600	.74060
3.310	.15230	-.00710	.00090	.00090	.00020	.10130	.01810	.14170	.11570	1.22460
5.590	.21910	-.00310	.00110	.00060	.00060	.09840	.01800	.20400	.12670	1.61010
7.640	.29630	-.00670	.00160	.00080	.00070	.09520	.01750	.26600	.14230	1.86900
9.740	.36870	-.00660	.00290	.00060	.00040	.09360	.01830	.34160	.16730	2.04090
11.850	.43610	-.00620	.00790	.00060	.00030	.09120	.01830	.40130	.19330	2.07580
13.900	.51390	-.00460	.00460	.00060	.00030	.08920	.01830	.46940	.22740	2.06390
15.990	.59360	-.00620	.00460	.00060	.00020	.08690	.01830	.53930	.26760	2.01510
18.060	.67430	-.00760	.00540	.00060	.00030	.08500	.01850	.60410	.31150	1.93890
20.030	.74910	-.00670	.00660	.00060	.00030	.08370	.01800	.67370	.14410	1.89880
2.990	.02663	.00135	.00020	.00010	-.00000	-.00143	.00012	.02693	-.00017	.24507

	4.95	CRASSENT INTERVAL =	-5.00/	5.00
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MACH	ALPHA	OM	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.999	- .499	-.04120	-.02730	.00140	.00070	.00040	.08410	.00440	-.04000	.08440	-.48020
4.999	1.410	.00090	-.02360	.00110	.00030	.00060	.08180	.00470	-.00100	.08180	-.01260
4.999	3.440	.00470	-.01740	.00090	.00070	.00070	.08090	.00470	.03770	.08330	.45280
4.999	5.470	.08360	-.01620	-.00160	.00000	.00060	.07680	.00490	.08100	.08500	.95380
4.999	7.490	1.1130	-.01170	-.00030	.00010	.00050	.07460	.00400	.02940	.09220	1.40240
4.951	9.590	.19630	-.00900	-.00000	.00030	.00070	.07270	.00300	.08350	.10460	1.75330
4.959	11.590	.26280	-.00710	-.00010	.00010	.00100	.07180	.00320	.24290	.12320	1.97130
4.959	13.640	.32940	-.00730	-.00140	.00000	.00110	.07090	.00320	.30040	.14660	2.06910
4.959	15.680	.40070	-.00550	-.00150	-.00030	.00110	.07090	.00320	.36060	.17660	2.07490
4.959	17.730	.47330	-.00440	-.00230	.00000	.00120	.07100	.00350	.42920	.21190	2.02540
4.959	19.640	.55000	-.00340	-.00450	-.00020	.00090	.07020	.00420	.49430	.25100	1.96890
4.959	9.560	.20720	-.00960	-.00170	.00020	.00030	.07310	.00500	.19210	.10650	1.80370
GRAND		.02134	.00255	-.00013	.00000	.00000	-.00000	.00000	.01989	-.00007	-.23731

PARAMETRIC DATA

BETA =	.000	ELEVTR =	.000
AILRON =	.000	BOFLAP =	.000
SPDRBK =	999.999	TRIMER =	19.000

REFERENCE DATA

PRICE =	2000.0000	90.071	100RP =	036.7000	IN.
REF =	474.8000	IN.	YARP =	.0000	IN.
PRICE =	936.7000	IN.	ZARP =	.0000	IN.
SCALE =	.0240				

GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

GRADIENT INTERVAL = -5.00/ 5.00

WAGON	ALPHA	CN	CLM	CY	CYN	COL	CA	CAS	CL	CD	L/D
2.990	20.000	.60000	-.00740	-.00060	-.00010	-.00030	.00520	.01050	.60000	.32000	1.69320
2.990	22.000	.70020	-.01000	-.00790	-.00030	-.00050	.00360	.01900	.67100	.37000	1.60490
2.990	24.700	.83220	-.01230	-.00930	-.00030	-.00040	.00170	.01930	.73960	.43120	1.71490
2.990	26.000	.94970	-.01540	-.00920	-.00020	-.00050	.00000	.01930	.80630	.49920	1.61900
2.990	28.000	1.04230	-.02060	-.01180	.00000	-.00040	.00700	.01930	.87450	.57290	1.32630
2.990	30.000	1.14090	-.02200	-.01180	-.00010	-.00060	.00560	.01920	.93610	.63370	1.43570
2.990	33.000	1.25000	-.02480	-.01450	.00010	-.00030	.00390	.01900	.99240	.73960	1.34540
2.990	35.200	1.32910	-.02660	-.01580	.00010	-.00010	.00220	.01910	1.04310	.82670	1.26170
2.990	37.300	1.43340	-.02750	-.01740	.00120	.00010	.00110	.01920	1.09560	.92770	1.18190
2.990	39.500	1.53610	-.03350	-.01910	.00110	.00030	.00640	.01930	1.14210	1.03290	1.10610
2.990	41.400	1.61370	-.03550	-.01900	.00170	.00120	.06700	.01920	1.18510	1.11830	1.04170
2.990	43.000	1.14780	-.02190	-.01190	-.00020	-.00010	.00330	.01910	.94410	.65710	1.43660
2.990	44.551	1.07133	-.00960	-.00060	.00006	-.00005	-.00067	.00002	.02753	.03667	-.04154

TABULATED SOURCE DATA - MSFC TWT 574

DATE 28 SEP 73

MSFC 574 (0448) QRB 1308 W/M19

(REMOVED) (16 JUL 75)

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 AILRON = .000 DDFLAP = .000
 SPDRK = 999.999 TRIMER = 19.000

REFERENCE DATA

SREF = 2690.0000 56.17. XMRP = 836.7000 IN.
 LREF = 474.8000 IN. YMRP = .0000 IN.
 BREF = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

RUN NO. 523/ 0 RNVL = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	CN	CLM	CY	CYN	COL	CA	CAB	CL	CD	L/D
4.959	.56310	-.00510	-.00530	.00060	-.00070	.07140	.00490	.50320	.26250	1.91700
4.959	.64230	-.00740	-.00460	.00000	-.00070	.07120	.00500	.56760	.30910	1.83590
4.959	.72990	-.00750	-.00590	.00000	-.00060	.07130	.00500	.63560	.36540	1.73960
4.959	.82090	-.00320	-.00710	-.00020	-.00130	.07140	.00510	.70370	.42660	1.64190
4.959	.91290	-.01110	-.00750	-.00030	-.00070	.07190	.00510	.76660	.49760	1.54510
4.959	1.01200	-.01520	-.01010	-.00030	-.00060	.07190	.00500	.83560	.57510	1.45320
4.959	1.11370	-.01690	-.01130	.00020	-.00120	.07100	.00520	.90030	.65940	1.36910
4.959	1.21540	-.02040	-.01200	.00040	-.00140	.07070	.00500	.96030	.74670	1.28220
4.959	1.31590	-.02690	-.01390	.00060	-.00140	.07060	.00510	1.01310	.84280	1.20160
4.959	1.41640	-.02890	-.01570	.00020	-.00160	.06850	.00510	1.06310	.94160	1.12690
4.959	1.51070	-.03360	-.01570	.00070	-.00160	.06800	.00510	1.10120	1.03640	1.06250
4.959	1.61150	-.02170	-.00950	-.00020	-.00090	.07240	.00510	.84350	.56070	1.45240
4.959	1.72150	-.00149	-.00059	.00001	-.00001	-.00014	.00001	.00590	.03626	-.04260
4.959	.04693									

GRADIENT

DATE 28 SEP 75

(887087) (10 JUL 75)

TABULATED SOURCE DATA - MSFC TWT 574
MSFC 574 (048) ORB 1398 W/M19

PARAMETRIC DATA

ALPHA = 10.000 ELEVTR = .000
AIIRON = .000 BDFLAP = .000
SPDBRK = 999.990 TRIMER = 19.000

REFERENCE DATA

SRP = 2000.0000 96.17. YMRP = 838.7000 IN.
LRP = 474.8000 IN. YMRP = .0000 IN.
BRP = 938.7000 IN. ZMRP = .0000 IN.
SCALE = .0040

RUN NO. 509/ 0 RV/L = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.998	-10.390	.52810	.05780	.17410	-.01780	.02780	.02500	.03630	.51820	.11400	4.52670
.998	-8.470	.52180	.06000	.14500	-.01620	.02480	.02480	.03510	.50970	.11470	4.44110
.998	-6.440	.51330	.06330	.10640	-.01190	.01960	.02390	.03440	.50110	.11420	4.38460
.998	-4.400	.51170	.06540	.06590	-.00750	.01350	.02800	.03370	.49950	.11410	4.37560
.998	-2.390	.50630	.06680	.02960	-.00320	.00860	.02790	.03290	.49380	.11300	4.29110
.998	-.340	.50430	.07110	-.00870	.00030	.00350	.02680	.03180	.49210	.11360	4.33120
.998	1.680	.50300	.07090	-.04470	.00360	-.00140	.02660	.03280	.49240	.11370	4.33190
.998	3.720	.50390	.06780	-.06230	.00770	-.00700	.02670	.03380	.49320	.11370	4.33630
.998	5.750	.50590	.06410	-.12450	.01340	-.01290	.02710	.03680	.49560	.11410	4.32390
.998	7.800	.50450	.06350	-.16330	.01880	-.01840	.02680	.03780	.49220	.11350	4.33520
.998	9.880	.50350	.06130	-.19480	.02010	-.02210	.02570	.03940	.49140	.11230	4.37270
.998	-3.40	.49710	.07150	-.00750	.00000	.00350	.02700	.03230	.48490	.11230	4.38460
GRADIENT		-.00067	.00032	-.01825	.00184	-.00251	.00001	.00001	-.00067	-.00010	-.00184

RUN NO. 510/ 0 RV/L = 6.25 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.997	-10.370	.55590	.04350	.19740	-.01990	.02250	.06840	.03930	.53480	.18720	3.19640
.997	-8.600	.54450	.04800	.16080	-.01430	.02030	.06920	.03640	.52320	.18590	3.15240
.997	-6.340	.54070	.04970	.11850	-.00970	.01660	.07210	.03640	.51900	.18600	3.08800
.997	-4.480	.53080	.05520	.07270	-.00400	.01180	.07130	.03340	.50920	.18540	3.07790
.997	-2.440	.53900	.05540	.03110	.00020	.00360	.07490	.03380	.51280	.18860	3.02010
.997	-.350	.53740	.05670	-.00990	.00060	.00060	.07540	.03420	.51510	.17070	3.01650
.997	1.720	.53530	.05970	-.04970	.00600	-.00460	.07440	.03450	.51320	.16930	3.03030
.997	3.780	.53700	.05450	-.09700	.00970	-.00960	.07440	.03480	.51520	.16970	3.03990
.997	5.830	.53340	.05860	-.13330	.01410	-.01460	.07350	.03780	.51150	.16810	3.04280
.997	7.980	.54380	.04870	-.17750	.01870	-.01860	.07280	.04210	.52170	.16930	3.08030
.997	9.840	.54390	.04320	-.20950	.01870	-.02030	.07240	.04430	.52210	.16890	3.09110
.997	-3.40	.54360	.05340	-.01210	.00140	-.00120	.07730	.03500	.52080	.17390	2.99510
GRADIENT		.00066	-.00005	-.01971	.00161	-.00256	.00026	.00016	.00060	.00039	-.00357

TABULATED SOURCE DATA - NSFC TWT 574

DATE 20 SEP 73

(P87088) (10 JUL 73)

NSFC 574 (0448) ORB 1398 W/119

PARAMETRIC DATA

REFERENCE DATA

SRZF = 2090.0000 88.47. XPRP = 836.7000 IN.
LWZF = 474.8000 IN. YPRP = .0000 IN.
BRZF = 936.7000 IN. ZPRP = .0000 IN.
SCALE = .0040

ALPHA = 20.000 ELEVTR = .000
AIIROH = .000 BOPLAP = .000
SPORBK = 999.990 TRIMER = 19.000

RUN NO. 984/ 0 RV/L = 4.91 GRADIENT INTERVAL = -5.00/ 5.00

NOCH	BETA	CH	CLM	CL	CY	CYN	CA	CAS	CL	CD	L/D
4.999	-10.340	.9890	-.00710	.01670	.00630	.00080	.07540	.00520	.50190	.26490	1.89470
4.999	-8.480	.98910	-.00430	.01410	.07680	.00680	.07360	.00530	.50760	.26510	1.91510
4.999	-6.400	.98920	-.00870	.01100	.05630	.00490	.07220	.00530	.51190	.26520	1.82960
4.999	-4.360	.97480	-.00970	.00790	.03400	.00330	.07120	.00540	.51470	.26560	1.93910
4.999	-2.360	.97780	-.00790	.00360	.01320	.00260	.07030	.00540	.51800	.26540	1.93150
4.999	-.340	.97330	-.00710	.00010	-.00220	.00010	.06930	.00530	.51590	.26410	1.94370
4.999	1.670	.97510	-.00560	-.00320	-.00210	-.00030	.06820	.00530	.51810	.26290	1.96300
4.999	3.690	.96940	-.01140	-.00320	-.00590	-.00030	.06610	.00540	.51090	.26030	1.96080
4.999	5.710	.96910	-.00670	-.00320	-.00590	-.00030	.06910	.00540	.50310	.26130	1.95220
4.999	7.730	.96160	-.00760	-.01230	-.00750	-.00030	.07000	.00540	.50310	.25960	1.93600
4.999	9.610	.95910	-.00740	-.01530	-.01010	-.00030	.07190	.00540	.49900	.26010	1.91820
4.999	-.340	.97190	-.00700	.00020	-.00210	.00000	.07070	.00540	.51240	.26360	1.94220
4.999	GRADIENT	-.00067	-.00015	-.00180	-.00023	-.00121	-.00042	-.00001	-.00047	-.00063	.00261

(P87089) (10 JUL 73)

NSFC 574 (0448) ORB 1398 W/120

PARAMETRIC DATA

ALPHA = 20.000 ELEVTR = .000
AIIROH = .000 BOPLAP = .000
SPORBK = 999.990 TRIMER = 20.000

REFERENCE DATA

SRZF = 2090.0000 88.47. XPRP = 836.7000 IN.
LWZF = 474.8000 IN. YPRP = .0000 IN.
BRZF = 936.7000 IN. ZPRP = .0000 IN.
SCALE = .0040

RUN NO. 987/ 0 RV/L = 4.92 GRADIENT INTERVAL = -5.00/ 5.00

NOCH	BETA	CH	CLM	CL	CY	CYN	CA	CAS	CL	CD	L/D
4.999	-10.380	.94700	-.00290	.01530	.01000	.00000	.07560	.00510	.48810	.25760	1.89420
4.999	-8.430	.95190	-.02130	.00650	.00740	.00000	.07170	.00530	.48250	.25750	1.91400
4.999	-6.400	.95390	-.02200	.03990	.00370	.00000	.07050	.00540	.49360	.25720	1.92700
4.999	-4.360	.95260	-.02130	.07990	.00330	.00000	.06800	.00530	.49500	.25510	1.93990
4.999	-2.360	.95010	-.02030	.01650	.00200	.00000	.06650	.00540	.49280	.25400	1.93960
4.999	-.340	.96360	-.02190	-.00120	.00000	-.00010	.06660	.00530	.50550	.25690	1.95220
4.999	1.670	.95620	-.02010	-.01260	-.00260	-.00010	.06600	.00530	.49860	.25560	1.93020
4.999	3.650	.95440	-.02030	-.04210	-.00420	-.00010	.06750	.00530	.49710	.25460	1.94170
4.999	5.710	.95290	-.02090	-.06160	-.00580	-.00010	.06920	.00540	.49540	.25440	1.93010
4.999	7.730	.95050	-.02160	-.06360	-.00780	-.00010	.06970	.00550	.49270	.25520	1.91430
4.999	9.610	.94480	-.02140	-.10260	-.01020	-.00010	.07190	.00550	.48700	.25440	1.93040
4.999	-.340	.95420	-.02170	-.00100	-.00010	-.00010	.06770	.00540	.49680	.25470	1.95040
4.999	GRADIENT	.00046	.00010	-.00096	-.00097	-.00117	-.00015	-.00000	.00013	.00013	.00176

PARAMETRIC DATA

ALPHA = 10.000 ELEVTR = .000
ALLCON = .000 BOFLAP = .000
SPDRK = 999.999 TRIMER = 20.000

REFERENCE DATA

SECT = 2000.0000 30.FT. 1000 = 636.7000 IN.
LREF = 474.6000 IN. TMRP = .0000 IN.
BREF = 936.7000 IN. ZMRP = .0000 IN.
SCALE = .0040

RUN NO. 514/ 0 RVL = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CH	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.999	-10.360	.92560	.02890	.17960	-.01770	.02360	.02090	.03610	.51410	.11130	4.61650
.999	-8.470	.51990	.03110	.14860	-.01650	.02030	.02390	.03440	.50790	.11330	4.48130
.999	-6.440	.51220	.03330	.11000	-.01290	.01610	.02430	.03430	.50030	.11230	4.45440
.999	-4.400	.50830	.03670	.06630	-.00760	.01090	.02330	.03340	.49340	.11210	4.40240
.999	-2.390	.50290	.04130	.02910	-.00260	.00660	.02340	.03220	.49100	.11170	4.39830
.999	-.340	.50080	.04330	-.01020	.00120	.00300	.02450	.03160	.48650	.11040	4.42410
.999	1.710	.50100	.04250	-.04640	.00280	-.00120	.02370	.03160	.48940	.10970	4.45610
.999	3.720	.50600	.03960	-.06690	.00330	-.00360	.02300	.03200	.49050	.10920	4.49020
.999	5.730	.49600	.03670	-.12690	.01470	-.01060	.02250	.03230	.48670	.10760	4.51190
.999	7.600	.49900	.03410	-.18630	.01990	-.01370	.02270	.03240	.48760	.10640	4.49630
.999	9.700	.49610	.03310	-.20020	.02130	-.01660	.02140	.03480	.48700	.10700	4.51110
.999	-3.40	.49680	.04350	-.00970	.00150	.00300	.02420	.03160	.48660	.10960	4.43000
GRADIENT		-.00042	.00034	-.01909	.00204	-.00201	-.00031	-.00016	-.00036	-.00036	.01206

RUN NO. 515/ 0 RVL = 6.22 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CH	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.999	-10.570	.53940	.01430	.19660	-.01330	.01920	.00630	.03660	.53810	.16750	3.21890
.999	-8.610	.54670	.01600	.16220	-.01410	.01770	.06610	.03600	.52770	.16320	3.19270
.999	-6.540	.53960	.01960	.11610	-.01010	.01450	.06670	.03430	.51660	.16420	3.15930
.999	-4.480	.52990	.02230	.07330	-.00460	.01020	.06950	.03360	.50660	.16310	3.11990
.999	-2.440	.52720	.02070	.03330	-.00040	.00550	.07230	.03460	.50560	.16330	3.03960
.999	-.390	.52490	.02260	-.00600	.00260	.00060	.07140	.03530	.50370	.16400	3.07130
.999	1.730	.52630	.02030	-.04940	.00560	-.00030	.07220	.03520	.50660	.16340	3.10430
.999	3.770	.52350	.02100	-.09350	.00990	-.00370	.07090	.03490	.50440	.16360	3.10320
.999	5.840	.52690	.02060	-.13690	.01390	-.01150	.07040	.03600	.50350	.16320	3.09670
.999	7.930	.53170	.01660	-.18040	.01770	-.01510	.07220	.03940	.51020	.16610	3.07190
.999	9.660	.53350	.01260	-.21740	.01790	-.01600	.07150	.04480	.51360	.16610	3.09240
.999	-3.50	.52640	.02190	-.00630	.00270	.00160	.07230	.03460	.50700	.16530	3.06300
GRADIENT		-.00036	-.00014	-.02014	.00172	-.00216	.00013	-.00013	-.00037	-.00005	-.00032

TABULATED SOURCE DATA - MSFC TWT 574

MSFC 574 (0448) ORS 1398 W/MCO

(087090) (18 JUL 73)

PARAMETRIC DATA

ALPHA = 10.000 ELEVTR = .000
 AILKON = .000 BOFLAP = .000
 SPORK = 999.999 TRIMER = 20.000

REFERENCE DATA

REF = 2890.0000 88.00 IN. XREF = 638.7000 IN.
 LREF = 474.0000 IN. YREF = .0000 IN.
 ZREF = 934.7000 IN. ZREF = .0000 IN.
 SCALE = .0040

RUN NO. 512/ 0 RV/L = 6.64 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CH	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
1.197	-10.910	.65750	-.04550	.17190	-.01110	.02140	.15470	.06590	.61760	.27540	2.23870
1.197	-9.640	.65820	-.04480	.13710	-.00970	.01650	.13740	.06470	.61760	.27610	2.23710
1.197	-8.580	.65840	-.04570	.10110	-.00750	.01180	.11760	.06360	.61600	.27660	2.23330
1.107	-4.480	.65790	-.04600	.06310	-.00410	.00780	.09480	.06180	.61720	.27750	2.22360
1.197	-2.440	.65670	-.04590	.02480	-.00240	.00420	.05950	.05890	.61650	.27500	2.24180
1.197	-.340	.65640	-.04550	-.01600	.00120	.00120	.15620	.05820	.61630	.27470	2.24260
1.197	1.740	.65510	-.04470	-.03490	.00780	-.00250	.15610	.06790	.61490	.27640	2.22380
1.197	3.790	.65310	-.04390	-.05490	.01160	-.00340	.16150	.06680	.61210	.27920	2.19170
1.197	5.870	.65230	-.04340	-.13010	.01580	-.01010	.16130	.06590	.61130	.27900	2.19180
1.197	7.960	.64500	-.03900	-.17050	.01710	-.01430	.16110	.06310	.60890	.27700	2.17580
1.197	9.300	.64180	-.03920	-.20580	.01690	-.01880	.15640	.06420	.60180	.27400	2.19560
1.197	-.340	.65610	-.04550	-.01740	.00130	.00110	.15640	.05890	.61590	.27480	2.24110
GRADIENT		-.00054	.00030	-.01907	.00191	-.00160	.00034	.00058	-.00036	.00023	-.00091

RUN NO. 515/ 0 RV/L = 6.99 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CH	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
1.960	-10.700	.45880	-.04000	.16790	.00070	.01390	.12170	.03260	.42990	.20250	2.12510
1.960	-9.780	.44780	-.03620	.12900	.00130	.01070	.12900	.03350	.41840	.20130	2.07930
1.960	-8.820	.45580	-.03310	.09380	.00120	.00630	.12640	.03160	.42350	.20390	2.05600
1.960	-4.780	.44420	-.03310	.05680	.00110	.00540	.12560	.03030	.41480	.20130	2.06030
1.960	-8.430	.43680	-.03300	.02580	.00090	.00280	.12110	.02970	.41000	.19790	2.07170
1.960	-.340	.43350	-.03280	-.00400	.00130	.00000	.12150	.02930	.40470	.19720	2.05810
1.960	1.760	.43000	-.03220	-.04110	.00170	-.00240	.12270	.03060	.40110	.19760	2.02910
1.960	3.830	.43940	-.03170	-.07970	.00160	-.00500	.12370	.03190	.40970	.20250	2.02280
1.960	5.950	.44090	-.03150	-.11040	.00160	-.00780	.12610	.03310	.41110	.20320	2.02300
1.960	8.030	.43840	-.03350	-.14590	.00120	-.01010	.12600	.03400	.40870	.20260	2.01650
1.960	10.010	.44350	-.03670	-.18320	.00160	-.01260	.12430	.03460	.41370	.20160	2.04980
1.960	-.340	.42750	-.03500	-.00950	.00130	-.00010	.12010	.02940	.39910	.19450	2.03190
GRADIENT		-.00066	.00017	-.01599	.00079	-.00124	.00028	.00023	-.00092	.00011	-.00050

DATE 20 SEP 73

(R07090) (18 JUL 73)

TABULATED SOURCE DATA - NSFC TWT 574
NSFC 574 (0448) CRB 1398 W/H20

PARAMETRIC DATA

ALPHA = 10.000 ELEVTR = .000
AIRCOR = .000 SDPLAP = .000
SPDRK = 999.990 TRIMER = 20.000

REFERENCE DATA

SRCT = 2880.0000 88.17. SRCP = 888.7000 IN.
LREF = 474.8000 IN. YREF = .0000 IN.
SRCT = 938.7000 IN. ZREF = .0000 IN.
SCALE = .0000

RUN NO. 550/ 0 RML = 4.07 GRADIENT INTERVAL = -5.00/ 5.00

WCH	BETA	CH	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/P
2.990	-10.480	.89820	-.00500	.19990	-.00870	.01250	.09400	.01890	.29910	.14190	1.90190
2.990	-8.910	.88750	-.01740	.12800	-.00380	.01100	.09320	.01840	.29780	.14090	1.90430
2.990	-8.470	.88480	-.00280	.09790	-.00810	.00800	.09420	.01840	.29480	.14100	1.87850
2.990	-4.420	.88480	-.01990	.08240	-.00810	.00800	.09490	.01840	.29410	.14190	1.88340
2.990	-8.410	.88810	-.01830	.03340	.00030	.00350	.09450	.01850	.29300	.14100	1.88310
2.990	-3.90	.88190	-.01940	.03440	.00070	.00100	.09420	.01810	.29190	.14090	1.88410
2.990	1.700	.87940	-.01480	-.02520	.00100	-.00160	.09420	.01820	.29550	.14010	1.88230
2.990	3.720	.87880	-.01540	-.03590	.00110	-.00410	.09360	.01840	.29660	.14130	1.83000
2.990	5.780	.87900	-.01870	-.06450	.00250	-.00700	.09320	.01890	.29690	.14100	1.83660
2.990	7.810	.87770	-.02390	-.12160	.00360	-.00970	.09430	.01870	.29780	.13980	1.84330
2.990	9.710	.87950	-.02240	-.15090	.00350	-.01120	.09450	.01890	.29930	.14030	1.84770
2.990	-36.3	.87910	-.01570	.00490	.00040	.00090	.09360	.01810	.29920	.13940	1.85910
2.990		-.00071	.00148	-.01444	.00035	-.00124	.09005	.00700	-.00071	.00076	-.00410

GRADIENT

DATE 28 SEP 73

TABULATED SOURCE DATA - NSFC TMT 374

NSFC 374 (0448) CRB 1392 W/MED

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(R07051) (18 JUL 73)

REFERENCE DATA

WREF = 2000.0000 28. FT. XWRP = 838.7000 IN.
 LREF = 474.8000 IN. YWRP = .0000 IN.
 WREF = 938.7000 IN. ZWRP = .0000 IN.
 SCALE = .0040

BETA = .000 ELEVTR = .000
 AIRLON = .000 ODPLAP = .000
 SPDRK = 999.990 TRIMER = 20.000

PARAMETRIC DATA

RUN NO. 506/ 0 RV/L = 5.08 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CH	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.603	-.470	-.06070	.04420	.00280	.00100	.00280	.03900	.02900	-.06020	.03950	-1.01180
.605	1.430	.03070	.04410	.00100	.00090	.00310	-.770	.02900	.02920	.05840	.50080
.609	3.990	.13640	.04610	-.00200	.00110	.00290	.03240	.02960	.13280	.06090	2.13050
.603	5.700	.24790	.04850	-.00180	.00100	.00320	.04300	.02920	.24240	.06740	3.59480
.609	7.780	.35950	.04830	-.00640	.00170	.00300	.03310	.03110	.33170	.08150	4.31410
.603	9.820	.48510	.04320	-.00570	.00110	.00380	.02310	.03180	.47350	.10850	4.36890
.605	12.040	.60210	.03830	-.00730	.00060	.00170	.02770	.03240	.56300	.15260	3.81530
.603	14.140	.72820	.03330	-.01410	.00160	.00310	.02870	.03610	.70020	.20530	3.41000
.605	16.230	.82810	.03460	-.02120	.00270	.00170	.03010	.03950	.76670	.26040	3.02010
.603	18.370	.96540	.03470	-.02490	.00290	.00270	.02550	.04370	.90810	.32850	2.76370
.605	20.310	1.08850	.03720	-.02690	.00300	.00130	.02340	.04820	.99300	.39470	2.51540
.603	9.920	.46580	.04800	-.00850	.00110	.00320	.02320	.03150	.47420	.10660	4.36650
.605	.04856	.00046	.00046	-.00119	.00003	.00002	-.00164	.00015	.04755	.00036	.78621

RUN NO. 505/ 0 RV/L = 6.36 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CH	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
.604	-.500	-.07630	.04560	-.00490	.00220	.00360	.07100	.03000	-.07790	.07170	-1.06820
.604	1.320	.03410	.06090	-.00340	.00210	.00360	.07040	.03020	.03220	.07130	.45200
.604	3.790	.15770	.05320	-.00950	.00250	.00320	.07190	.03100	.15260	.06210	1.85930
.604	5.340	.28720	.04320	-.00990	.00270	.00270	.07490	.03140	.27790	.10430	2.66300
.604	8.100	.40560	.03530	-.01390	.00280	.00310	.07270	.03260	.39130	.12920	3.02790
.604	10.290	.52840	.02150	-.01290	.00240	.00130	.07480	.03510	.50650	.16760	3.01760
.604	12.490	.65540	.00840	-.01720	.00280	.00100	.07630	.03690	.62330	.21640	2.88030
.604	14.670	.78990	.00190	-.01900	.00380	-.00320	.07770	.04460	.74440	.27530	2.70350
.604	16.900	.92150	-.00250	-.01750	.00590	-.00400	.08070	.05050	.85820	.34510	2.48640
.604	19.100	1.02750	.01420	-.01730	.00610	-.00320	.08170	.05630	.94400	.41340	2.28310
.604	21.070	1.09180	.03650	-.01770	.00620	-.00230	.08280	.06050	.98890	.46960	2.10490
.604	.53040	.00040	.00240	-.01490	.00270	.00070	.07990	.03550	.50870	.16750	3.03690
.604	.05557	-.00250	-.00250	-.00110	.00007	-.00010	.00022	.00024	.05425	.00249	.69199

GRADIENT

DATE 28 SEP 73

TABULATED SOURCE DATA - MSFC TWT 574

MSFC 574 (0448) ORB 1398 W/H2O

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(R07091) (10 JUL 73)

REFERENCE DATA

REF = 2480.0000 54.77. XHP = 636.7000 IN.
 LREF = 474.0000 IN. YHP = .0000 IN.
 BREF = 906.7000 IN. ZHP = .0000 IN.
 SCALE = .0040

BETA = .000 ELEVTR = .000
 AIRLON = .000 BDPLAP = .000
 SPDRON = 999.999 TRIMER = 20.000

PARAMETRIC DATA

RUN NO. 504/ 0 RVL = 6.75 GRADIENT INTERVAL = -5.00/ 5.00

WCH	ALPHA	CH	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
1.196	-1.370	.01130	.04440	-.00390	.00260	.00240	.16030	.05670	.01230	.16920	.07290
1.196	1.690	.14070	.01870	-.00640	.00300	.00230	.16060	.05710	.13570	.17270	.76580
1.196	3.960	.27990	-.00960	-.00770	.00300	.00170	.16300	.05630	.26760	.18330	1.44300
1.196	6.180	.41080	-.02530	-.00910	.00300	.00200	.16340	.05690	.39020	.20660	1.86610
1.196	8.360	.53960	-.03530	-.00850	.00290	.00120	.15960	.05780	.49970	.23520	2.12410
1.196	10.630	.66900	-.04600	-.01160	.00340	.00190	.15650	.05920	.61660	.27550	2.24670
1.196	12.900	.79860	-.06210	-.01020	.00220	.00030	.15290	.06090	.74260	.32710	2.27040
1.196	15.110	.92060	-.07120	-.01120	.00210	-.00090	.15140	.06330	.84950	.36630	2.19690
1.196	17.330	1.04060	-.08010	-.01400	.00260	-.00100	.14860	.06770	1.03670	.43210	2.09910
1.196	19.540	1.15460	-.08940	-.01640	.00350	-.00040	.14740	.07150	1.10350	.52320	1.97750
1.196	21.810	1.24660	-.07960	-.02160	.00360	-.00040	.14490	.07250	1.10350	.59400	1.86590
1.196	20.640	.98120	-.04660	-.01140	.00300	.00210	.15620	.05660	.62100	.27570	2.25230
1.196	GRADIENT	.08230	-.01182	-.00068	.00005	-.00016	-.00070	-.00005	.05926	.00377	.31763

RUN NO. 518/ 0 RVL = 7.02 GRADIENT INTERVAL = -5.00/ 5.00

WCH	ALPHA	CH	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
1.191	-1.470	.00630	.00460	-.00060	.00160	.00100	.13990	.03220	-.00530	.14000	-.03640
1.191	1.360	.07930	-.00380	-.00230	.00170	.00070	.13610	.03270	.07540	.14020	.53610
1.191	3.780	.16080	-.01560	-.00290	.00150	.00060	.13660	.03140	.17120	.13030	1.13920
1.191	5.960	.26440	-.02500	-.00340	.00160	.00040	.13320	.03090	.24920	.16700	1.55690
1.191	8.130	.35600	-.02960	-.00340	.00140	.00030	.12960	.02960	.33400	.17670	1.86670
1.191	10.350	.43700	-.03560	-.00520	.00160	.00030	.12420	.03060	.40770	.20060	2.03240
1.191	12.590	.53640	-.03600	-.00660	.00150	.00020	.12030	.03190	.49350	.23310	2.11670
1.191	14.730	.66730	-.04160	-.00810	.00160	.00030	.11570	.03200	.57720	.27140	2.12620
1.191	16.920	.73150	-.04330	-.00920	.00160	.00030	.11450	.03250	.66620	.32290	2.06260
1.191	19.160	.82930	-.04930	-.00900	.00120	.00010	.11130	.03390	.74690	.37750	1.97620
1.191	21.620	.91930	-.05450	-.01030	.00200	.00000	.10780	.03590	.81760	.43350	1.86640
1.191	20.820	.43760	-.03860	-.00490	.00170	.00030	.12320	.03060	.40860	.19970	2.04560
1.191	GRADIENT	.04399	-.00461	-.00044	-.00002	-.00005	-.00030	-.00019	.04146	.00244	.27640

NSFC 574 (0448) ORB 1398 WANE2

(087051) (18 JUL 73)

REFERENCE DATA

REF = 2490.0000 98-FT. 10MRP = 638.7000 IN.
 LREF = 474.8000 IN. 7MRP = .0000 IN.
 BREF = 936.7000 IN. 2MRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .070 ELEVTR = .000
 AIRRON = .000 BOFLAP = .000
 SPDRK = 999.990 TRIMER = 20.000

RUN NO. 520/ 0 RV/L = 4.12 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	-1.490	-0.02970	-0.01210	0.0150	0.0080	0.0060	0.1010	0.0100	-0.02760	0.11030	-0.25200
2.990	1.440	0.02290	-0.01200	0.0130	0.0100	0.0040	0.10750	0.01810	0.02010	0.10600	0.16200
2.990	3.510	0.04320	-0.01170	0.0040	0.0060	0.0040	0.10400	0.01830	0.07670	0.10690	0.70430
2.990	5.570	0.14590	-0.01260	-0.00070	0.0060	0.0010	0.09990	0.01830	0.13540	0.11360	1.19190
2.990	7.630	0.21260	-0.01250	-0.00050	0.0070	0.0020	0.09700	0.01810	0.19600	0.12490	1.59070
2.990	9.720	0.26270	-0.01680	-0.00140	0.0060	0.0010	0.09400	0.01850	0.26270	0.14040	1.87130
2.990	11.800	0.35330	-0.01770	-0.00170	0.0060	0.0040	0.08210	0.01890	0.32700	0.16240	2.01310
2.990	13.880	0.42340	-0.01680	-0.00330	0.0060	0.0030	0.06930	0.01860	0.39130	0.16680	2.07370
2.990	15.960	0.50060	-0.02080	-0.00260	0.0030	0.0010	0.06760	0.01860	0.45730	0.22220	2.05760
2.990	18.070	0.56070	-0.02330	-0.00420	0.0030	0.0010	0.06510	0.01870	0.52560	0.26100	2.01320
2.990	20.010	0.63640	-0.02730	-0.00490	0.0030	0.0000	0.06330	0.01870	0.58330	0.30290	1.94200
2.990	9.730	0.26660	-0.01670	-0.00150	0.0040	0.0010	0.09430	0.01850	0.26660	0.14140	1.88310
2.991	0.000	0.00000	-0.00000	-0.00000	-0.00000	-0.00000	-0.00133	0.00000	0.02614	-0.00034	-0.23921

RUN NO. 519/ 0 RV/L = 5.03 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.929	-1.490	-0.02980	-0.02730	-0.00030	0.00180	0.0030	0.06380	0.02500	-0.03920	0.08410	-0.46590
4.929	1.410	0.00040	-0.02410	0.00120	0.00110	0.0040	0.06270	0.02510	-0.00180	0.08270	-0.01960
4.929	3.440	0.04180	-0.02160	-0.0020	0.00060	-0.00050	0.07950	0.02510	0.03670	0.08180	0.44890
4.929	5.470	0.08100	-0.02030	0.00070	0.00120	0.00030	0.07430	0.02500	0.06330	0.08260	1.01030
4.929	7.490	0.14300	-0.01700	-0.00020	0.00090	0.0000	0.07340	0.02470	0.13220	0.09140	1.44660
4.929	9.530	0.19670	-0.01680	-0.00040	0.00040	-0.00020	0.07140	0.02510	0.16410	0.10340	1.77960
4.929	11.560	0.25700	-0.01720	-0.00230	0.00180	-0.00050	0.07030	0.02500	0.23760	0.12050	1.97120
4.929	13.630	0.32430	-0.01860	-0.00090	0.00060	-0.00050	0.06850	0.02500	0.29900	0.14310	2.06940
4.929	15.670	0.39370	-0.01750	-0.00230	0.00100	-0.00010	0.06840	0.02560	0.36160	0.17230	2.09270
4.929	17.720	0.46370	-0.02020	-0.00390	0.00060	-0.00050	0.06840	0.02560	0.42090	0.20630	2.03980
4.929	19.850	0.53930	-0.02120	-0.00400	0.00090	-0.00030	0.06840	0.02570	0.48510	0.24590	1.97270
4.929	9.530	0.19990	-0.01670	-0.00210	0.00100	-0.00010	0.07160	0.02570	0.16530	0.10360	1.78420
4.929	0.000	0.00000	-0.00000	-0.00000	-0.00000	-0.00000	-0.00110	0.00000	0.01931	-0.00058	-0.23273

(887092) (18 JUL 75)

TABULATED SOURCE DATA - NSFC TWT 574

NSFC 574 (0A48) CRB 1398 W/MED

DATE 28 SEP 75

REFERENCE DATA

SRST = 2600.0000 58.77. 199P = 838.7000 IN.
 LIMP = 474.5000 IN. 199P = .0000 IN.
 SRST = 936.7000 IN. 299P = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 AILKON = .000 BICFLAP = .000
 SPOBRK = 999.990 TRIMER = 20.000

RUN NO. 507/ 0 RV/L = 4.97 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/O
20.960	1.08070	.04090	-.02910	.00420	.00070	.02920	.04780	1.00010	.41020	2.43760
21.960	1.10810	.04490	-.02760	.00370	-.00020	.02230	.05380	1.06350	.46300	2.24290
22.960	1.23430	.07100	-.01960	.00360	-.00610	.02840	.06790	1.10910	.54680	2.02830
23.960	1.18790	.12630	-.00340	.00230	-.01380	.03480	.07230	1.04270	.37040	1.82660
24.960	1.18080	.16610	-.02230	.00100	-.00010	.04490	.08310	.96360	.56570	1.64750
25.960	1.17710	.16640	-.01700	-.00060	-.00120	.04450	.08930	.98560	.64570	1.52810
26.960	1.28130	.14690	-.01790	-.00080	-.00170	.03840	.08790	1.05190	.75280	1.43370
27.960	1.37080	.13390	-.02050	-.00090	-.00200	.03200	.08340	1.10190	.81610	1.33010
28.960	1.45490	.12200	-.01990	.00070	-.00090	.03240	.09180	1.13850	.90630	1.23610
29.960	1.53030	.12620	-.02310	.00080	-.00160	.03220	.09630	1.16280	.99510	1.16830
30.960	1.61740	.13110	-.02490	-.00020	-.00110	.02490	.09770	1.19840	1.08640	1.10300
31.960	1.67710	.16600	-.01510	-.00080	-.00150	.04640	.08780	.96430	.64720	1.52060
GRADIENT	.02340	.00409	.00011	-.00022	.00009	.00019	.00236	.00720	.03187	-.08429

RUN NO. 525/ 0 RV/L = 4.09 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/O
20.960	.66420	-.02890	-.00700	-.00040	.00000	.06330	.01840	.59800	.31230	1.69560
21.960	.74370	-.03000	-.00740	-.00010	-.00010	.06180	.01670	.63490	.36180	1.61090
22.960	.83260	-.03900	-.01830	-.00030	-.00020	.06120	.01910	.72270	.42100	1.71630
23.960	.92150	-.03960	-.00850	.00000	-.00040	.07830	.01930	.78700	.48580	1.61990
24.960	1.11320	-.05010	-.01080	-.00030	-.00040	.07380	.01920	.91600	.63690	1.43800
25.960	1.20930	-.05550	-.01850	.00030	-.00040	.07230	.01910	.97300	.72170	1.34820
26.960	1.30560	-.06190	-.01600	.00060	-.00120	.07050	.01900	1.02600	.81070	1.26530
27.960	1.40070	-.06880	-.01530	.00080	-.00090	.06870	.01920	1.07220	.90390	1.18600
28.960	1.49760	-.07160	-.01640	.00060	-.00110	.06670	.01920	1.11400	1.00310	1.11030
29.960	1.58720	-.07730	-.01730	.00030	-.00130	.06540	.01940	1.14730	1.09670	1.04420
30.960	1.67710	-.09060	-.01150	-.00080	-.00030	.07340	.01920	1.14730	.91820	1.43940
GRADIENT	.04477	-.00247	-.00037	.00003	-.00007	-.00019	.00003	.02730	.03600	-.04155

DATE 28 SEP 73

TABULATED SOURCE DATA - NSFC TWT 574

(R07092) (18 JUL 73)

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 ALLCON = .000 BDFLAP = .000
 SPDRK = 999.990 TRIMER = 20.000

REFERENCE DATA

SRZF = 2000.0000 90.FT. XGRP = 638.7000 IN.
 LREF = 474.6000 IN. YGRP = .0000 IN.
 BRZF = 936.7000 IN. ZGRP = .0000 IN.
 SCALE = .0040

RUN NO. 326/ 0 RVL = 4.92 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.959	20.300	.93370	-.02180	-.00360	-.00030	-.00120	.06560	.00470	.49520	.23740	1.92330
4.959	22.220	.63030	-.02640	-.00510	-.00090	-.00110	.06860	.00490	.53740	.30200	1.84580
4.959	24.280	.71830	-.02900	-.00750	-.00100	-.00140	.06970	.00500	.62630	.39830	1.74780
4.959	26.340	.80490	-.03180	-.00850	-.00080	-.00130	.06900	.00500	.69070	.41900	1.64830
4.959	28.360	.89610	-.03460	-.00690	-.00050	-.00150	.06850	.00490	.73580	.48620	1.55450
4.959	30.400	.99360	-.03970	-.00750	-.00030	-.00140	.06790	.00510	.82220	.56240	1.48190
4.959	32.520	1.09340	-.04640	-.01140	-.00040	-.00170	.06690	.00500	.86870	.64430	1.37500
4.959	34.580	1.19130	-.05210	-.01250	.00000	-.00180	.06550	.00510	.94350	.73020	1.29220
4.959	36.640	1.29200	-.05850	-.01250	.00000	-.00200	.06560	.00500	.99740	.82360	1.21070
4.959	38.700	1.38770	-.06710	-.01430	-.00040	-.00190	.06410	.00500	1.04280	.91780	1.13620
4.959	40.820	1.46360	-.07250	-.01560	-.00070	-.00160	.06340	.00500	1.08480	1.01420	1.06950
4.959	42.900	.99850	-.07690	-.00890	-.00100	-.00180	.06720	.00500	.82480	.56310	1.46470
4.959	30.460	.04605	-.04040	-.00056	.00002	-.00204	-.00030	.00001	.02948	.03741	-.04267
	GRADIENT		-.00248	-.00056	.00002	-.00204	-.00030	.00001			

DATE 28 SEP 75

TABULATED SOURCE DATA - MSFC TWT 574

MSFC 574 (0448) CRB 1398 W/H23

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(AB7093) (22 JUN 75)

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 AIRCON = .000 BOFLAP = .000
 SPCBRK = 999.999 TRIMER = 23.000

REFERENCE DATA

WREF = 2000.0000 90.00 FT. XWRP = 836.7000 IN.
 LREF = 474.0000 IN. YWRP = .0000 IN.
 WREF = 936.7000 IN. ZWRP = .0000 IN.
 SCALE = .0040

RUN NO. 533/ 0 RN/L = 9.01 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CN	ILM	CY	CYN	CBL	CA	CAB	L/D	CL	CD
.997	-1.510	-0.0050	.00000	.00220	.00150	.00200	.06070	.03000	-1.14130	-.07000	.08130
.997	1.480	.02460	.03910	-.00060	.00140	.00230	.05900	.02970	.38750	.02310	.05980
.997	3.980	.15010	.04070	.00270	.00180	.00220	.05310	.03080	2.07290	.12630	.06100
.997	5.840	.24120	.04290	-.00660	.00210	.00230	.04280	.03020	3.95220	.23590	.06840
.997	7.780	.35100	.04310	-.01000	.00200	.00180	.03270	.03130	4.33460	.34350	.07920
.997	9.900	.47820	.04180	-.01260	.00160	.00240	.02230	.03080	4.47900	.46720	.10430
.997	12.010	.60240	.03650	-.01150	.00180	.00050	.02360	.03360	3.93450	.56420	.14850
.997	14.130	.72830	.03130	-.01570	.00210	-.00140	.02450	.03570	3.47930	.70040	.20130
.997	16.240	.85650	.02730	-.02150	.00380	-.00160	.02590	.03870	3.06180	.81500	.26440
.997	18.370	1.01480	.01840	-.02310	.00370	-.00120	.02270	.04150	2.79920	.93570	.34140
.997	20.400	1.15530	.01900	-.02150	.00320	-.00270	.01980	.04510	2.55350	1.07640	.42150
.997	GRADIENT	.04942	.00059	-.00120	.00703	.00005	-.00188	.00020	.79180	.04843	-.00007

RUN NO. 534/ 0 RN/L = 6.33 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	L/D	CL	CD
.997	-1.510	-0.0050	.00000	.00220	.00150	.00200	.06070	.03000	-1.14130	-.07000	.08130
.997	1.480	.02460	.03910	-.00060	.00140	.00230	.05900	.02970	.38750	.02310	.05980
.997	3.980	.15010	.04070	.00270	.00180	.00220	.05310	.03080	2.07290	.12630	.06100
.997	5.840	.24120	.04290	-.00660	.00210	.00230	.04280	.03020	3.95220	.23590	.06840
.997	7.780	.35100	.04310	-.01000	.00200	.00180	.03270	.03130	4.33460	.34350	.07920
.997	9.900	.47820	.04180	-.01260	.00160	.00240	.02230	.03080	4.47900	.46720	.10430
.997	12.010	.60240	.03650	-.01150	.00180	.00050	.02360	.03360	3.93450	.56420	.14850
.997	14.130	.72830	.03130	-.01570	.00210	-.00140	.02450	.03570	3.47930	.70040	.20130
.997	16.240	.85650	.02730	-.02150	.00380	-.00160	.02590	.03870	3.06180	.81500	.26440
.997	18.370	1.01480	.01840	-.02310	.00370	-.00120	.02270	.04150	2.79920	.93570	.34140
.997	20.400	1.15530	.01900	-.02150	.00320	-.00270	.01980	.04510	2.55350	1.07640	.42150
.997	GRADIENT	.05887	.00032	-.00100	.00712	.00005	-.00182	.00007	.74231	.05752	.00297

DATE 28 SEP 73

TABULATED SOURCE DATA - NSFC TWT 574

NSFC 574 (0A48) CRB 1398 W/M23

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(487093) (22 JUN 73)

REFERENCE DATA

WREF = 2890.0000 SQ.FT. XREF = 836.7000 IN.
 LREF = 474.0000 IN. YREF = .0000 IN.
 SREF = 916.7000 IN. ZREF = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 AIRLON = .000 BDFLAP = .000
 SPDRBK = 999.999 TRIMER = 23.000

RUN NO. 533/ 0 RN/L = 6.79 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	L/D	CL	CD
1.196	-400	.0280	.0370	-.00250	-.00220	.00250	.16950	.05600	.02290	.00380	.16570
1.196	1.600	.13360	.01040	-.00350	.00230	.00210	.14800	.05590	.74570	.12670	.17270
1.196	3.900	.26860	-.01470	-.00900	.00250	.00160	.16630	.05660	1.39270	.25680	.18430
1.196	6.110	.39900	-.03250	-.00750	.00280	.00180	.16330	.05790	1.85160	.37940	.20490
1.196	8.350	.51640	-.04020	-.00650	.00320	.00150	.15840	.05810	2.10470	.48790	.23180
1.196	10.610	.64700	-.04800	-.00500	.00270	.00290	.15370	.05910	2.24850	.60770	.27020
1.196	12.890	.78440	-.05400	-.00350	.00210	.00300	.15020	.06070	2.27780	.73130	.32100
1.196	15.070	.91810	-.05810	-.00200	.00190	.00310	.14650	.06350	2.21710	.84780	.38230
1.196	17.320	1.04400	-.06070	-.00150	.00110	-.00070	.14330	.06750	2.11400	.95300	.45080
1.196	19.530	1.14940	-.06280	-.00100	.00030	-.00070	.14090	.07290	1.99310	1.05530	.51940
1.196	21.620	1.24450	-.06360	-.00050	.00010	.00010	.13820	.07990	1.87380	1.10500	.58970
1.196	GRADIENT	.06185	-.01208	-.00082	.00017	-.00021	-.00075	.00014	.31825	.05878	.00346

RUN NO. 544/ 0 RN/L = 4.15 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	L/D	CL	CD
2.990	-310	-.02800	-.01710	-.00670	.00050	.00020	.11190	.01830	-.24810	-.02780	.11220
2.990	1.400	.02340	-.01500	-.00900	.00090	.00020	.10930	.01840	.18920	.02070	.10980
2.990	3.480	.06410	-.01350	-.00870	.00080	-.00010	.10320	.01850	.70410	.07750	.11020
2.990	5.540	.14650	-.01270	-.00830	.00040	-.00060	.10130	.01880	1.18250	.13600	.11500
2.990	7.630	.21990	-.01070	-.00800	.00040	-.00020	.09750	.01880	1.57270	.19610	.12470
2.990	9.720	.28040	-.01150	-.00660	.00040	-.00050	.09440	.01890	1.85310	.26040	.14050
2.990	11.810	.33240	-.01000	-.00530	.00020	-.00070	.09220	.01930	2.00680	.32600	.16240
2.990	13.860	.42410	-.01140	-.00400	-.00020	-.00040	.08980	.01890	2.06610	.39020	.18880
2.990	15.970	.50090	-.01060	-.00270	-.00050	-.00070	.08730	.01900	2.06200	.45750	.22190
2.990	18.060	.57970	-.01070	-.00150	-.00050	-.00040	.08610	.01910	2.00470	.52450	.26180
2.990	20.050	.66290	-.01270	-.00050	-.00050	-.00020	.08470	.01900	1.93410	.59370	.30690
2.990	GRADIENT	.02831	.00060	.00000	-.00008	-.00007	-.00168	.00005	.25878	.02640	-.00049

DATE: 23 SEP 73

TABULATED SOURCE DATA - NSFC TNT 574

NSFC 574 (0448) ORB 1398 W/NE3

(187093) (21 JUN 73)

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 AIRGUN = .000 BOFLAP = .000
 SPOOK = 999.990 TRIMER = 23.000

REFERENCE DATA

SACF = 2990.0000 94.00 FT. WRP = 838.7000 IN.
 LREF = 474.8000 IN. YPR = .0000 IN.
 SREF = 936.7071 IN. ZPR = .0005 IN.
 SCALE = .0040

RUN NO. 341/ 0 RVL = 3 02 GRADIENT INTERVAL = -5.00/ 5.00

MACT	ALPHA	CH	CLM	CY	CYN	CEL	CA	CAS	L/D	CL	CD
4.99	-0.310	-0.04130	-0.03010	-0.00720	.00170	.00080	.06340	.00560	-0.48510	-0.04070	.06400
4.99	1.330	-0.00680	-0.02710	-0.00980	.00140	.00000	.06450	.00590	-0.12720	-0.01070	.06430
4.99	3.420	.04180	-0.02400	-0.00780	.00130	-0.00020	.06170	.00590	.43180	.03630	.06400
4.99	5.4.0	.06480	-0.01970	-0.00830	.00040	-0.00020	.07870	.00600	.89290	.07710	.06840
4.99	7.490	.13790	-0.01690	-0.00990	.00100	-0.00030	.07590	.00610	1.37640	.12680	.09350
4.99	9.540	.19380	-0.01540	-0.00730	.00030	-0.00060	.07290	.00610	1.71930	.17890	.10400
4.99	11.560	.25640	-0.01000	-0.00790	.00010	-0.00060	.07180	.00680	1.94180	.23670	.15190
4.99	13.610	.32130	-0.01000	-0.00630	.00000	-0.00070	.07010	.00630	2.03340	.29540	.14520
4.99	15.660	.38090	-0.01060	-0.00730	.00000	-0.00070	.06960	.00640	2.06330	.35740	.17320
4.99	17.720	.46410	-0.00970	-0.00870	-0.00010	-0.00120	.06960	.00640	2.02610	.42080	.20770
4.99	19.870	.53620	-0.01120	-0.00740	-0.00010	-0.00130	.07000	.00640	1.95510	.48320	.24710
GRADIENT	.02100	.00155	.00155	-0.00709	-0.00010	-0.00010	-0.00050	.00006	.23385	.01964	-0.00000

(R87394) (10 JUL 73)

PARAMETRIC DATA

BETA	=	.000	ELEVTR	=	.000
AILRON	=	.000	BCFLAP	=	.000
SPDRBK	=	99.2.990	TRIMER	=	25.000

LABORATORY SOURCE DATA - MSFC TWT 574

MSFC 374 (04-18) CRB 1398 W/M23

REFERENCE DATA

SRCP	=	600,0000	90.07.	MRP	=	838,7000	IN.
LCR	=	474,0000	IN.	YMRP	=	.0000	IN.
PCR	=	930,7000	IN.	ZMRP	=	.0000	IN.
SCALE	=		.0040				

RMSE = 0.987 RMV = 0.987 GRADIENT INTERVAL = -5.00/ 5.00

PARAM	ALPHA	CM	CLM	CY	CYN	COL	CA	CAB	CL	CD	L/T
.999	21.080	1.14900	.01410	-.02890	.00330	-.00280	.01920	.04360	1.06350	.43020	2.47640
.999	22.990	1.23400	.02040	-.03000	.00670	.00200	.01650	.04890	1.14800	.50190	2.27300
.999	23.000	1.23130	.02210	-.02210	.00310	-.00360	.02320	.05740	1.10600	.54500	2.04200
.999	26.990	1.13920	.01780	-.01420	.00500	.00160	.03960	.06820	.99750	.55160	1.80820
.999	28.940	1.11940	.02370	-.01360	.00180	-.00470	.04690	.07540	.93660	.66290	1.64140
.999	31.000	1.18000	.02470	-.01680	.00110	-.00160	.04350	.06090	.99130	.64720	1.53160
.999	33.100	1.26600	.02400	-.01360	.00330	-.00250	.03950	.06110	1.04060	.72360	1.43400
.999	35.190	1.33110	.02160	-.01640	.00270	-.00290	.03650	.06360	1.06740	.79600	1.34090
.999	37.230	1.41960	.01920	-.02390	.00170	-.00190	.03210	.06890	1.11100	.86450	1.23600
.999	39.360	1.53760	.00910	-.03110	.00270	-.00330	.02760	.09170	1.16660	1.00940	1.17540
.999	41.390	1.63790	.00820	-.03620	.00160	-.00340	.01830	.09400	1.21710	1.09360	1.11060
.999	51.040	1.19260	.02690	-.01910	.00130	-.00200	.04320	.06230	.99960	.65240	1.53250
GRADIENT		.02135	-.00462	.00046	-.00029	.00007	.00022	.00250	.001525	-.00129	-.00854

Variable	Mean	SD	SE	95% CI	Gradient Interval
Age	4.15	1.15	0.05	3.95 - 4.35	-5.00/ 5.00
Gender	0.50	0.50	0.05	0.40 - 0.60	-5.00/ 5.00
SES	1.50	1.00	0.05	1.40 - 1.60	-5.00/ 5.00
SES ²	2.25	1.50	0.05	2.15 - 2.35	-5.00/ 5.00
SES ³	3.38	2.29	0.05	3.28 - 3.48	-5.00/ 5.00
SES ⁴	5.06	4.00	0.05	4.96 - 5.16	-5.00/ 5.00
SES ⁵	7.69	6.25	0.05	7.59 - 7.79	-5.00/ 5.00
SES ⁶	11.75	10.00	0.05	11.65 - 11.85	-5.00/ 5.00
SES ⁷	17.88	15.00	0.05	17.78 - 17.98	-5.00/ 5.00
SES ⁸	25.75	20.00	0.05	25.65 - 25.85	-5.00/ 5.00
SES ⁹	35.00	25.00	0.05	34.90 - 35.10	-5.00/ 5.00
SES ¹⁰	45.38	32.50	0.05	45.28 - 45.48	-5.00/ 5.00
SES ¹¹	56.88	40.00	0.05	56.78 - 56.98	-5.00/ 5.00
SES ¹²	69.38	45.00	0.05	69.28 - 69.48	-5.00/ 5.00
SES ¹³	82.75	50.00	0.05	82.65 - 82.85	-5.00/ 5.00
SES ¹⁴	96.88	55.00	0.05	96.78 - 96.98	-5.00/ 5.00
SES ¹⁵	111.69	60.00	0.05	111.59 - 111.79	-5.00/ 5.00
SES ¹⁶	127.13	65.00	0.05	127.03 - 127.23	-5.00/ 5.00
SES ¹⁷	143.13	70.00	0.05	143.03 - 143.23	-5.00/ 5.00
SES ¹⁸	159.69	75.00	0.05	159.59 - 159.79	-5.00/ 5.00
SES ¹⁹	176.69	80.00	0.05	176.59 - 176.79	-5.00/ 5.00
SES ²⁰	194.13	85.00	0.05	194.03 - 194.23	-5.00/ 5.00
SES ²¹	212.00	90.00	0.05	211.90 - 212.10	-5.00/ 5.00
SES ²²	230.38	95.00	0.05	230.28 - 230.48	-5.00/ 5.00
SES ²³	249.25	100.00	0.05	249.15 - 249.35	-5.00/ 5.00
SES ²⁴	268.63	105.00	0.05	268.53 - 268.73	-5.00/ 5.00
SES ²⁵	288.50	110.00	0.05	288.40 - 288.60	-5.00/ 5.00
SES ²⁶	308.88	115.00	0.05	308.78 - 308.98	-5.00/ 5.00
SES ²⁷	329.75	120.00	0.05	329.65 - 329.85	-5.00/ 5.00
SES ²⁸	351.13	125.00	0.05	351.03 - 351.23	-5.00/ 5.00
SES ²⁹	373.00	130.00	0.05	372.90 - 373.10	-5.00/ 5.00
SES ³⁰	395.38	135.00	0.05	395.28 - 395.48	-5.00/ 5.00
SES ³¹	418.25	140.00	0.05	418.15 - 418.35	-5.00/ 5.00
SES ³²	441.63	145.00	0.05	441.53 - 441.73	-5.00/ 5.00
SES ³³	465.50	150.00	0.05	465.40 - 465.60	-5.00/ 5.00
SES ³⁴	490.00	155.00	0.05	489.90 - 490.10	-5.00/ 5.00
SES ³⁵	515.13	160.00	0.05	515.03 - 515.23	-5.00/ 5.00
SES ³⁶	540.88	165.00	0.05	540.78 - 540.98	-5.00/ 5.00
SES ³⁷	567.25	170.00	0.05	567.15 - 567.35	-5.00/ 5.00
SES ³⁸	594.25	175.00	0.05	594.15 - 594.35	-5.00/ 5.00
SES ³⁹	621.88	180.00	0.05	621.78 - 621.98	-5.00/ 5.00
SES ⁴⁰	650.00	185.00	0.05	649.90 - 650.10	-5.00/ 5.00
SES ⁴¹	678.63	190.00	0.05	678.53 - 678.73	-5.00/ 5.00
SES ⁴²	707.75	195.00	0.05	707.65 - 707.85	-5.00/ 5.00
SES ⁴³	737.38	200.00	0.05	737.28 - 737.48	-5.00/ 5.00
SES ⁴⁴	767.50	205.00	0.05	767.40 -	

[illegible]

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(DATE 20 SEP 73)

TABULATED SOURCE DATA - NSFC TWT 374

PAGE 180

(R07094) (10 JUL 73)

NSFC 374(OA48) OF 1396 W/M23

REFERENCE DATA

REF = 2000.0000 IN. PT. 1000 = 634.7000 IN.
 LAMP = 474.0000 IN. YAMP = .0030 IN.
 REF = 934.7000 IN. ZAMP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 AIRCON = .000 BOFLAP = .000
 SPOBRK = 999.990 TRIMER = 23.000

RUN NO. 342/ 0 PAUL = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

WAVE	ALPHA	ON	CLM	r	CYN	CEL	CA	CAB	CL	CD	L/D
4.000	20.000	.04700	-.00000	-.00040	-.00090	-.00110	.07130	.00500	.48040	.27950	1.90300
4.000	20.000	.04700	-.00000	-.01000	-.00110	-.00160	.07100	.00590	.55950	.30380	1.83030
4.000	20.000	.04700	-.00000	-.00970	-.00110	-.00100	.07090	.00670	.62130	.33600	1.75330
4.000	20.000	.04700	-.00110	-.00280	-.00210	-.00080	.07110	.00610	.54700	.41910	1.63920
4.000	20.000	.04700	-.00160	-.01800	-.00240	-.00130	.07020	.00810	.73780	.49930	1.54820
4.000	20.000	.04700	-.00190	-.01900	-.00140	-.00090	.07000	.00810	.82410	.56820	1.45330
4.000	20.000	.04700	-.00190	-.01900	-.00140	-.00090	.06910	.00810	.88450	.64510	1.37110
4.000	20.000	.04700	-.00260	-.01750	-.00060	-.00210	.06830	.00390	.94240	.73290	1.29630
4.000	20.000	.04700	-.00420	-.01210	-.00130	-.00260	.06740	.00600	.99940	.82790	1.20770
4.000	20.000	.04700	-.00400	-.01810	-.00100	-.00260	.06630	.00670	1.04980	.92710	1.13220
4.000	20.000	.04700	-.00470	-.01720	-.00140	-.00260	.06630	.00590	1.08610	1.02120	1.06330
4.000	20.000	.04700	-.00470	-.01320	-.00130	-.00110	.06620	.00600	.82430	.56340	1.45770
4.000	20.000	.04700	-.00190	-.00132	-.00100	-.00109	-.07027	-.00000	.02983	.03767	-.04188

GRADIENT

DATE 20 SEP 73

TABULATED SOURCE DATA - MSFC TWT 574

PAGE 181

MSFC 574 (0448) ORB 1358 W/MES

(AST095) (22 JUN 73)

PARAMETRIC DATA

ALPHA = 10.000 ELEVTR = .000
 ATILAN = .000 BOFLAP = .000
 SPORER = 999.990 TRIMCR = 23.000

REFERENCE DATA

SRCT = 2995.0000 98.77. YMRP = 636.7000 IN.
 LRCP = 474.6000 IN. YMRP = .0000 IN.
 SRCT = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

RUN NO. 537/ 0 RV/L = 5.10 GRADIENT INTERVAL = -5.00/ 5.00

WCH	BETA	CH	CLM	CY	CYN	CBL	CA	CAS	L/D	CL	CD
.000	-13.490	.52100	.02160	.17910	-.01910	.02340	.01910	.03610	4.5550	.50980	.10470
.000	-8.490	.51070	.02210	.14620	-.01700	.02010	.01990	.03410	4.64020	.49980	.10760
.000	-8.490	.50110	.02640	.10760	-.01270	.01620	.02060	.03290	4.56610	.49000	.10690
.000	-4.440	.49360	.03080	.07090	-.00840	.01110	.02160	.03100	4.53200	.48440	.10690
.000	-2.390	.48600	.03510	.03190	-.00360	.00690	.02170	.02990	4.54090	.48370	.10390
.000	-.340	.48080	.03840	-.00990	.00100	.00280	.02000	.03000	4.59090	.47590	.10390
.000	1.690	.46690	.03720	-.04990	.00350	-.00110	.01870	.03060	4.63710	.47640	.10290
.000	3.790	.46080	.03480	-.08320	.00660	-.00590	.01970	.03140	4.61540	.47790	.10360
.000	5.790	.45000	.03220	-.12810	.01460	-.01000	.02180	.03320	4.55190	.46100	.10600
.000	7.760	.44400	.02960	-.16790	.02190	-.01490	.02190	.03560	4.55360	.46290	.10600
.000	9.710	.43240	.02690	-.20310	.02240	-.01760	.02070	.03660	4.57820	.46190	.10310
GRADIENT		-.00116	.00096	-.01927	.00213	-.00290	-.00033	.00006	.01394	-.00110	-.00095

RUN NO. 536/ 0 RV/L = 6.40 GRADIENT INTERVAL = -5.00/ 5.00

WCH	BETA	CH	CLM	CY	CYN	CBL	CA	CAS	L/D	CL	CD
.000	-10.990	.54680	.07000	.20580	-.01470	.01640	.04610	.03660	3.23870	.52600	.16300
.000	-8.640	.54580	.00090	.16990	-.01360	.01420	.06690	.03640	3.22340	.52490	.16260
.000	-6.370	.53680	.02690	.12990	-.00990	.01190	.06770	.03440	3.17700	.51610	.16240
.000	-4.320	.52760	.04640	.06900	-.00560	.00890	.06680	.03390	3.13770	.50690	.16160
.000	-2.440	.52330	.01010	.03440	-.00120	.00470	.06710	.03390	3.15590	.50300	.15930
.000	-.390	.52440	.01090	-.00900	.00270	.00200	.06680	.03330	3.12460	.50370	.16120
.000	1.710	.52680	.01090	-.05120	.00590	-.00220	.06970	.03340	3.13010	.50670	.16230
.000	3.790	.52520	.01060	-.09380	.00960	-.00660	.06690	.03390	3.12460	.51450	.16140
.000	5.940	.53400	.00890	-.13960	.01410	-.01060	.07120	.03630	3.11970	.51290	.16440
.000	7.910	.53890	.00760	-.18200	.01790	-.01410	.06920	.03900	3.13290	.51190	.16320
.000	9.990	.53790	.00600	-.22180	.01620	-.01510	.06960	.04160	3.13540	.51670	.16480
GRADIENT		.00003	.00043	-.02194	.00161	-.00181	.00012	-.00002	-.00241	.00001	.00013

DATE 20 SEP 73

(AB7095) (22 JUN 73)

TABULATED SOURCE DATA - NPFC TWT 574
NPFC 574 (0448) ON 1598 W/MES

REFERENCE DATA

SWP = 1520.0000 80-FT. SWP = 636.7000 IN.
LWP = 474.0000 IN. YWP = .0000 IN.
SWP = 936.7000 IN. ZWP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

ALPHA = 10.000 ELEVTR = .000
AIIIRON = .000 DOFLAP = .000
SPORR = 999.990 TRIMER = 23.000

NUM NO. 330/ 0 RM/L = 0.81 GRADIENT INTERVAL = -5.00/ 5.00

NUM	BETA	CH	CLM	CY	CTN	CBL	CA	CAB	L/D	CL	CD
1.801	-1.010	.00000	-.00000	.17330	-.01210	.00000	.15410	.06500	2.20000	.61600	.27290
1.802	-3.680	.00000	-.00000	.13910	-.01100	.01040	.15810	.06450	2.24100	.61420	.27400
1.803	-6.360	.00000	-.00000	.10690	-.00990	.01140	.15680	.06340	2.23070	.61500	.27470
1.804	-9.040	.00000	-.00000	.07690	-.00870	.00790	.15700	.06250	2.23140	.61860	.27480
1.805	-11.720	.00000	-.00000	.04890	-.00840	.00330	.15690	.06120	2.23360	.61810	.27400
1.806	-14.400	.00000	-.00000	.02190	-.00800	.00000	.15600	.05910	2.25140	.61760	.27120
1.807	-17.080	.00000	-.00000	.00000	-.00750	-.00000	.15570	.06190	2.23930	.61170	.27310
1.808	-19.760	.00000	-.00000	-.00000	.01140	-.00430	.15640	.06320	2.21090	.60900	.27540
1.809	-22.440	.00000	-.00000	-.00000	.01360	-.00290	.15920	.06510	2.20330	.60650	.27910
1.810	-25.120	.00000	-.00000	-.00000	.01690	-.01340	.15930	.06810	2.19900	.60250	.27500
1.811	-27.800	.00000	-.00000	-.00000	.01990	-.01870	.15770	.06820	2.19200	.59730	.27290
1.812	-30.480	.00000	-.00000	-.00000	.02219	-.00130	.00000	.00000	-.00166	-.00039	.00003

NUM NO. 340/ 0 RM/L = 4.50 GRADIENT INTERVAL = -5.00/ 5.00

NUM	BETA	CH	CLM	CY	CTN	CBL	CA	CAB	L/D	CL	CD
1.801	-10.400	.20910	-.00000	.14620	-.00370	.01250	.09480	.01940	1.90760	.27260	.14300
1.802	-13.080	.20910	-.00000	.11830	-.00390	.01080	.09420	.01870	1.89490	.26840	.14160
1.803	-15.760	.20910	-.00000	.09540	-.00230	.00600	.09420	.01860	1.88360	.26580	.14110
1.804	-18.440	.20910	-.00000	.07690	-.00030	.00520	.09550	.01870	1.87230	.26320	.14210
1.805	-21.120	.20910	-.00000	.05890	-.00000	.00290	.09470	.01870	1.86460	.26130	.14090
1.806	-23.800	.20910	-.00000	.04190	.00000	.00000	.09420	.01860	1.86700	.26250	.14060
1.807	-26.480	.20910	-.00000	.02490	.00000	-.00000	.09480	.01860	1.84760	.25960	.14050
1.808	-29.160	.20910	-.00000	.00790	.00000	-.00000	.09510	.01910	1.84190	.25960	.14100
1.809	-31.840	.20910	-.00000	-.00000	.00290	-.00000	.09440	.01910	1.83910	.26130	.14050
1.810	-34.520	.20910	-.00000	-.00000	.00490	-.00000	.09440	.01910	1.83270	.26250	.14070
1.811	-37.200	.20910	-.00000	-.00000	.00690	-.00000	.09500	.01950	1.82640	.26260	.14140
1.812	-39.880	.20910	-.00000	-.00000	.00890	-.00000	.09500	.01950	1.82640	.26260	.14140
1.813	-42.560	.20910	-.00000	-.00000	.01090	-.00000	.09500	.01950	1.82640	.26260	.14140

DATE 20 SEP 73

(R87094) (10 JUL 73)

TABULATED SOURCE DATA - WPC TWT 574
WPC 574 (0448) CDS 1308 W/HES

PARAMETRIC DATA

ALPHA = 20.000 ELEVTR = .000
ATLON = .000 BOFLAP = .000
SPDRK = 999.990 TRIMER = 23.000

REFERENCE DATA

REF = 2000.0000 SE.FT. 1987 = 608.7000 IN.
LAP = 474.6000 IN. TWP = .0000 IN.
REF = 608.7000 IN. TWP = .0000 IN.
SCALE = .0040

RUN NO. 541/ 0 RVL = 3.16 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CM	CLM	CY	CYN	CEL	CA	CAR	CL	CD	L/D
4.999	-10.380	.25300	-.00040	.00190	.00670	.01420	.07360	.00810	.49370	.25960	1.90040
4.999	-8.480	.98490	-.01810	.06730	.00590	.01020	.07140	.00620	.49390	.25930	1.91960
4.999	-6.410	.98980	-.01490	.04720	.00480	.00960	.07130	.00630	.50100	.25970	1.92490
4.999	-4.410	.99990	-.01040	.02970	.00300	.00570	.07000	.00640	.49720	.25730	1.93180
4.999	-2.370	.99740	-.00840	.01090	.00140	.00240	.07030	.00630	.49680	.25650	1.92930
4.999	-.340	.99970	-.01330	-.00390	-.00120	-.00020	.07120	.00630	.49730	.25760	1.93030
4.999	1.670	.99840	-.01310	-.02140	-.00410	-.00320	.06930	.00630	.49770	.25700	1.93870
4.999	3.670	.99980	-.01470	-.04020	-.00470	-.00590	.06890	.00640	.49320	.25590	1.92990
4.999	5.710	.99110	-.01320	-.02960	-.00630	-.00930	.06970	.00650	.49200	.25550	1.92530
4.999	7.730	.94880	-.01830	-.08110	-.01780	-.01190	.07010	.00650	.48310	.25230	1.91320
4.999	9.680	.94090	-.01890	-.10230	-.02900	-.01470	.07040	.00650	.48780	.25730	1.93460
4.999	-.340	.99300	-.01060	-.00430	-.00140	-.00060	.06960	.00640	.49780	.25730	1.93460
4.999	-.340	.99000	-.00000	-.00832	-.00103	-.00142	-.00017	-.00001	.00003	-.00017	.00143

GRADIENT

DATE 20 SEP 73

LABORATORY SOURCE DATA - HSPC TWT 574
HSPC 574 (0448) CRB 1398

(087097) (10 JUL 73)

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
AILKON = .000 SOTLAP = .000
SPDRK = 999.999

REFERENCE DATA

SPD = 2400.0000 28.00 FT. WSP = 606.7000 IN.
LSP = 474.0000 IN. YWSP = .0000 IN.
SPD = 906.7000 IN. ZWSP = .0000 IN.
SCALE = .0000

RUN NO. 63/ 0 RML = 4.92 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	CH	GLH	CY	CYN	CHL	CA	CAB	CL	CD	L/D
.000	-11.140	.04800	-.00000	.00040	.00400	.00000	.00000	-.90000	.15000	-3.69700
.000	-9.140	.04800	-.01170	.00070	.00400	.00000	.00000	-.48570	.11940	-4.06710
.000	-7.000	.04800	-.01180	.00090	.00330	.00000	.00000	-.37200	.09120	-4.06420
.000	-4.910	.04800	-.01170	.00050	.00270	.00000	.00000	-.26740	.07190	-3.71850
.000	-2.860	.04800	-.01400	.00110	.00240	.00000	.00000	-.17080	.06170	-2.76990
.000	-.0770	.04800	-.01500	.00160	.00230	.00000	.00000	-.07700	.05590	-1.56270
.000	1.210	.04800	-.01650	.00140	.00200	.00000	.00000	.06880	.05390	.49300
.000	3.460	.04800	-.01900	.00160	.00150	.00000	.00000	.12900	.05990	2.19770
.000	5.540	.04800	-.02000	.00170	.00070	.00000	.00000	.22780	.06070	3.74500
.000	7.640	.04800	-.02420	.00220	.00000	.00000	.00000	.33700	.07320	4.59970
.000	9.940	.04800	-.02700	.00250	.00000	.00000	.00000	.44530	.09610	4.63430
.000	-.0750	.04800	-.01620	.00060	.00000	.00000	.00000	-.07440	.05810	-1.32290
.000	.04776	.04800	-.00000	.00012	-.00013	-.00006	-.00030	.04676	-.00193	.72191

RUN NO. 64/ 0 RML = 6.22 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	CH	GLH	CY	CYN	CHL	CA	CAB	CL	CD	L/D
.000	-11.000	.13300	-.01330	.00080	.00790	.00790	.00150	-.74090	.21230	-3.48860
.000	-9.000	.09040	-.01410	.00120	.00530	.00670	.00000	-.61210	.16590	-3.73710
.000	-7.000	.06080	-.01670	.00180	.00350	.00720	.00000	-.49490	.12190	-4.06220
.000	-5.000	.04040	-.01790	.00210	.00290	.00930	.00000	-.35650	.09500	-3.87470
.000	-3.000	.02070	-.01870	.00220	.00260	.00810	.00000	-.22920	.07450	-3.07560
.000	-.0750	.02000	-.02000	.00240	.00200	.06410	.00710	-.10990	.14560	-1.67430
.000	1.200	.02000	-.02300	.00250	.00200	.06590	.00590	.01140	.06320	.18170
.000	3.400	.04000	-.02400	.00270	.00200	.06350	.00650	.17750	.07270	1.88770
.000	5.500	.06000	-.02400	.00270	.00120	.06350	.00650	.25310	.06940	2.63110
.000	7.600	.08000	-.02600	.00280	-.00020	.06950	.00650	.37590	.11870	3.14930
.000	9.900	.10000	-.02700	.00310	-.00150	.06710	.00300	.48210	.11310	3.14850
.000	-.0770	.08000	-.02000	.00240	.00000	.06460	.00690	-.09970	.06610	-1.50680
.000	.04666	.08000	-.00000	.00007	-.00006	.00014	-.00034	.05560	-.00035	.76556

DATE 26 SEP 73 TABULATED SOURCE DATA - WPC TWT 574

(R07097) (18 JUL 73)

WPC 574 (M48) C5B 1398

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 AIRLON = .000 BFLAP = .000
 SPOCRK = 999.990

REFERENCE DATA

WPC = 5000.000 IN. FT. WPC = 500.0000 IN.
 WPC = 474.0000 IN. WPC = .0000 IN.
 WPC = 500.0000 IN. WPC = .0000 IN.
 SCALE = .0040

RUN NO. 64/ 0 RW/L = 6.50 GRADIENT INTERVAL = -5.00/ 5.00

WPC	ALPHA	CH	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
1.000	-11.760	-1.7600	.19700	-.01960	.00250	.00270	.16430	.05630	-.69480	.31270	-2.22100
1.100	-9.640	-.6400	.16740	-.01630	.00220	.00220	.16400	.05630	-.57470	.26400	-2.17660
1.200	-7.360	-.3600	.14700	-.01360	.00200	.00160	.16390	.05600	-.44800	.22500	-2.00050
1.300	-5.130	-.3600	.11680	-.01360	.00290	.00100	.16330	.05760	-.37640	.19150	-1.99990
1.400	-2.890	-.3600	.08660	-.01710	.00290	.00070	.16320	.05570	-.16270	.17370	-.93990
1.500	-.640	-.3600	.05640	-.01670	.00330	.00040	.16600	.05370	-.02420	.16630	-.14390
1.600	1.360	.11900	.02620	-.01940	.00340	.00030	.16340	.05390	.11440	.16690	.67890
1.700	3.600	.3600	-.00650	-.02170	.00390	.00020	.16410	.05470	.24940	.16120	1.37630
1.800	6.040	.3600	-.02630	-.02330	.00410	.00000	.16180	.05640	.37660	.20270	1.85090
1.900	8.340	.31900	-.04110	-.02330	.00360	-.00040	.15630	.05670	.49120	.22910	2.14370
1.950	10.370	.60350	-.06990	-.03010	.00600	.00190	.15430	.05940	.61160	.26690	2.27500
1.990	-.600	-.00760	.04930	-.01960	.00300	.00030	.16640	.05360	-.00370	.16640	-.03460
1.999	-.600	.06413	-.01349	-.00065	.00013	-.00007	-.00016	-.00014	.06143	.00111	.34667

RUN NO. 64/ 0 RW/L = 6.61 GRADIENT INTERVAL = -5.00/ 5.00

WPC	ALPHA	CH	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
1.000	-11.630	-.51600	.03790	-.01630	.00190	.00030	.14920	.02570	-.47780	.25060	-1.90690
1.100	-9.590	-.48940	.03780	-.01670	.00210	.00030	.14780	.02640	-.39690	.21690	-1.83970
1.200	-7.370	-.33920	.04360	-.01500	.00140	.00050	.14620	.02640	-.31780	.18050	-1.86430
1.300	-5.160	-.24930	.03960	-.01320	.00160	.00050	.14550	.02760	-.23250	.16720	-1.39080
1.400	-2.970	-.19190	.03490	-.01510	.00160	.00030	.14370	.02690	-.14390	.15140	-.95040
1.500	-.600	-.03670	.01240	-.01550	.00220	.00020	.14160	.03020	-.05670	.14240	-.39610
1.600	1.360	.03610	-.03070	-.01650	.00220	-.00020	.14000	.03060	.03470	.14090	.24660
1.700	3.610	.13730	-.01390	-.01630	.00160	-.00020	.13840	.03150	.12610	.14690	.66130
1.800	5.770	.22970	-.02490	-.01670	.00170	-.00020	.13640	.03170	.21430	.16090	1.33360
1.900	7.980	.31810	-.03360	-.01780	.00160	-.00020	.13130	.03030	.29100	.17300	1.66150
1.950	10.000	.36610	-.03950	-.01610	.00160	-.00030	.12820	.03050	.36980	.19320	1.69380
1.990	-.760	-.04840	.01060	-.01590	.00200	.00000	.14020	.03050	-.04640	.14060	-.33000
1.999	-.760	.04394	-.00560	-.00020	-.00006	-.00006	-.00005	.00043	.04140	-.00040	.27725

DATE 20 SEP 73

08070977 (18 JUL 73)

TABULATED SOURCE DATA - NSPC TMT 574
NSPC 574 (0448) CSD 1308

PARAMETRIC DATA

917A = .000 ELEVTR = .000
ALLRON = .000 DOFLAP = .000
SPDRK = 999.990

REFERENCE DATA

WSP = 8900.0000 88.47. WSP = 886.7000 IN.
LWSP = 474.0000 IN. WSP = .0000 IN.
WSP = 896.7000 IN. WSP = .0000 IN.
SCALE = .0040

RUN NO. 57/ 0 RWL = 4.06 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	CH	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
2.000	-11.040	-0.0010	.00400	.00040	.00040	.12670	.01400	-.51010	.18960	-1.43330
2.000	-9.180	-0.0120	.00350	.00040	.00040	.12150	.01430	-.28140	.18450	-1.50880
2.000	-7.820	-0.0140	.00300	.00040	.00040	.11820	.01490	-.21310	.14540	-1.48550
2.000	-6.460	-0.0400	.00210	.00000	.00000	.11490	.01590	-.16480	.12930	-1.27230
2.000	-5.100	-0.1480	.00130	.00000	.00000	.11200	.01630	-.11320	.11790	-.90020
2.000	-3.740	-0.2380	.00160	.00000	.00000	.10870	.01650	-.06300	.10930	-.57870
2.000	-2.380	-0.3280	.00110	.00000	.00000	.10540	.01690	-.01230	.10640	-.11590
2.000	-1.020	-0.4180	.00060	.00000	.00000	.10210	.01670	.04400	.10640	.41347
2.000	3.400	-0.5080	.00010	.00000	.00000	.10070	.01690	.10260	.10970	.94090
2.000	5.400	-0.5980	.00010	.00000	.00000	.09870	.01710	.16070	.11790	1.36340
2.000	7.400	-0.6880	.00010	.00000	.00000	.09570	.01700	.22010	.13080	1.69560
2.000	9.400	-0.7780	.00010	.00000	.00000	.09250	.01650	-.06070	.10930	-.55460
2.000	-0.780	-0.8680	.00010	.00000	.00000	.08970	.01630	-.02492	-.00277	.20264
2.000	-0.860	-0.9580	.00000	.00000	.00000	-.00134	.00015			

GRADIENT

RUN NO. 56/ 0 RWL = 4.90 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	CH	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
4.000	-23.400	-0.0280	.00110	.00060	.00000	.11360	.02250	-.22080	.19970	-1.43280
4.000	-21.800	-0.0390	.00110	.00050	.00000	.10800	.02260	-.19490	.14030	-1.41780
4.000	-19.400	-0.0500	.00100	.00070	.00000	.10460	.02290	-.17070	.12620	-1.39220
4.000	-17.000	-0.0610	.00090	.00070	.00000	.09790	.02320	-.13960	.11010	-1.26790
4.000	-14.600	-0.0720	.00080	.00050	.00000	.09160	.02340	-.09130	.09620	-.95110
4.000	-12.200	-0.0830	.00070	.00040	.00000	.08510	.02360	-.06530	.06590	-.78050
4.000	-9.800	-0.0940	.00060	.00030	.00000	.07860	.02380	-.02830	.04120	-.32410
4.000	-7.400	-0.1050	.00050	.00020	.00000	.07210	.02390	.01530	.04140	.18890
4.000	-5.000	-0.1160	.00040	.00010	.00000	.06560	.02370	.05750	.08230	.69630
4.000	-2.600	-0.1270	.00030	.00000	.00000	.05910	.02380	.10340	.06730	1.18860
4.000	3.400	-0.1380	.00020	.00000	.00000	.05260	.02390	.15160	.09780	1.59060
4.000	5.400	-0.1490	.00010	.00000	.00000	.04610	.02360	-.06050	.08620	-.70230
4.000	7.400	-0.1600	.00000	.00000	.00000	.03960	.02360	-.01635	-.00354	-.17331
4.000	-0.780	-0.1710	.00000	.00000	.00000	-.00219	.00018			

GRADIENT

DATE 20 SEP 73 TABULATED SOURCE DATA - M8FC TWT 574

(R07090) (16 JUL 75)

M8FC 574 (0446) ORB 1390

REFERENCE DATA

SRDF = 2000.0000 98.47. WARP = 936.7000 IN.
 LWD = 474.0000 IN. WARP = .0000 IN.
 SRDF = 936.7000 IN. WARP = .0000 IN.
 SCALE = .0040

RUN NO. 406/ 0 RVL = 4.91 GRADIENT INTERVAL = -5.00/ 5.00

WICH	ALPHA	ON	CLN	CT	CYC	ONL	CA	CAB	CL	CD	L/D
4.999	-4.430	-0.0000	-0.0000	.00430	.00120	.00070	.00720	.00430	-.00620	.06760	-.64140
4.999	1.420	-0.0000	-0.0000	.00360	.00090	.00050	.06480	.00500	-.02300	.06430	-.27320
4.999	3.430	-0.0000	-0.0000	.00190	.00030	.00030	.06100	.00310	.02000	.06240	.24270
4.999	5.440	-0.0000	-0.0000	.00240	.00110	.00090	.07810	.00530	.06330	.06450	.74910
4.999	7.450	-0.0000	-0.0000	.00390	.00170	.00020	.07480	.00340	.11100	.09010	1.23170
4.999	9.460	-0.0000	-0.0000	.00540	.00260	-.00020	.07240	.00530	.15490	.09940	1.55760
4.999	11.470	-0.0000	-0.0000	.00690	.00350	-.00030	.07180	.00340	.21100	.11650	1.61020
4.999	13.480	-0.0000	-0.0000	.00840	.00440	-.00030	.06990	.00530	.26270	.13540	1.93900
4.999	15.490	-0.0000	-0.0000	.01000	.00530	-.00030	.06930	.00350	.32130	.16500	1.96360
4.999	17.500	-0.0000	-0.0000	.01150	.00620	-.00030	.06830	.00560	.38220	.19340	1.97550
4.999	19.510	-0.0000	-0.0000	.01300	.00710	-.00030	.06740	.00360	.43930	.22760	1.92570
4.999	21.520	-0.0000	-0.0000	.01450	.00800	-.00030	.07290	.00550	.15950	.10070	1.56380
4.999	23.530	-0.0000	-0.0000	.01600	.00890	-.00030	-.00159	.00008	.01956	-.00133	.22706
4.999	25.540	-0.0000	-0.0000	.01750	.00980	-.00030	-.00210				

M8FC 574 (0446) ORB 1390

(R07099) (16 JUL 75)

REFERENCE DATA

SRDF = 2000.0000 98.47. WARP = 936.7000 IN.
 LWD = 474.0000 IN. WARP = .0000 IN.
 SRDF = 936.7000 IN. WARP = .0000 IN.
 SCALE = .0040

RUN NO. 406/ 0 RVL = 4.91 GRADIENT INTERVAL = -5.00/ 5.00

WICH	ALPHA	ON	CLN	CT	CYC	ONL	CA	CAB	CL	CD	L/D
4.999	-4.430	-0.0000	-0.0000	.00430	.00120	.00070	.00720	.00430	.43240	.24190	1.67020
4.999	1.420	-0.0000	-0.0000	.00360	.00090	.00050	.06950	.00530	.51040	.26310	1.80280
4.999	3.430	-0.0000	-0.0000	.00190	.00030	.00030	.06830	.00530	.57260	.33330	1.71810
4.999	5.440	-0.0000	-0.0000	.00240	.00110	.00090	.06730	.00530	.63400	.38900	1.62960
4.999	7.450	-0.0000	-0.0000	.00390	.00170	.00020	.06680	.00540	.69650	.45320	1.54110
4.999	9.460	-0.0000	-0.0000	.00540	.00260	-.00030	.06510	.00540	.75230	.51830	1.45150
4.999	11.470	-0.0000	-0.0000	.00690	.00350	-.00030	.06260	.00540	.81790	.59820	1.36730
4.999	13.480	-0.0000	-0.0000	.00840	.00440	-.00030	.06180	.00550	.87320	.67730	1.28910
4.999	15.490	-0.0000	-0.0000	.01000	.00530	-.00030	.05970	.00560	.92300	.76290	1.20990
4.999	17.500	-0.0000	-0.0000	.01150	.00620	-.00030	.05710	.00560	.97030	.85250	1.13820
4.999	19.510	-0.0000	-0.0000	.01300	.00710	-.00030	.06620	.00550	1.00710	.93040	1.07200
4.999	21.520	-0.0000	-0.0000	.01450	.00800	-.00030	-.00130	.00001	.76020	.50350	1.45210
4.999	23.530	-0.0000	-0.0000	.01600	.00890	-.00030	-.00160		.02761		-.04009
4.999	25.540	-0.0000	-0.0000	.01750	.00980	-.00030					

(087100) (18 JUL 73)

PARAMETRIC DATA

BETA = .000 ELVTR = .000
 ALLCON = .000 BOFLAP = -22.750
 SPDSBK = 999.990

DATE 28 SEP 73

TABULATED SOURCE DATA - MFC INC 74
 MFC 374 (04-48) QRS 15 '6)

REFERENCE DATA

REF = 3000.0000 26-FT. MFC = 636.7000 IN.
 LREF = 474.0000 IN. WREF = .0000 IN.
 SREF = 300.7000 IN. ZREF = .0000 IN.
 SCALE = .0000

RUN NO. 407/ 0 RVL = 4.17 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.500	6.4870	-02.450	-01.490	-00190	-00090	.09110	.01640	.57620	.30360	1.89780
2.500	7.1490	-02.900	-01.390	-00220	-00150	.07950	.01690	.63630	.35160	1.81520
2.500	8.0090	-03.190	-01.290	-00270	-00200	.07020	.01910	.70220	.40670	1.71790
2.500	8.6430	-03.600	-01.430	-00300	-00260	.07610	.01940	.76620	.47150	1.62490
2.500	9.0870	-03.950	-01.470	-00320	-00280	.07950	.01940	.82650	.54120	1.53060
2.500	9.4870	-04.300	-01.530	-00360	-00300	.07150	.01970	.88600	.61670	1.43970
2.500	9.8430	-04.650	-01.50	-00390	-00300	.07030	.02010	.94900	.70250	1.35090
2.500	1.0770	-04.950	-02.150	-00400	-00300	.06770	.02030	.99530	.78410	1.26930
2.500	1.2650	-05.250	-02.410	-00420	-00350	.06470	.02010	1.04360	.87610	1.19130
2.500	1.4110	-05.570	-02.470	-00440	-00350	.06270	.02010	1.08570	.97170	1.11730
2.500	1.5370	-05.800	-02.290	-00460	-00280	.06010	.02000	1.11940	1.06630	1.04971
2.500	1.6440	-06.000	-01.950	-00480	-00270	.07140	.01980	.89240	.61940	1.44060
2.500	1.7440	-06.215	-00.62	-00015	-00017	-.00103	.00007	.02658	.03691	-.04133

GRADIENT

RUN NO. 408/ 0 RVL = 5.01 GRADIENT INTERVAL = -5.00/ 5.10

ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.500	5.3120	-01.900	-00.970	-00110	-00130	.06710	.00570	.47510	.24700	1.82330
2.500	6.0090	-01.830	-00.910	-00110	-00130	.05.40	.00590	.53650	.29110	1.84270
2.500	6.8110	-01.900	-00.910	-00140	-00120	.06590	.00590	.60290	.34420	1.75170
2.500	7.7370	-02.350	-01.010	-00150	-00120	.06560	.00590	.66450	.40170	1.63390
2.500	8.6430	-02.810	-01.150	-00200	-00100	.06460	.00590	.73000	.46760	1.50120
2.500	9.5530	-03.070	-01.360	-00140	-00170	.06450	.00610	.79090	.53970	1.46550
2.500	1.0960	-03.430	-01.410	-00260	-00210	.06330	.00610	.85720	.62140	1.37950
2.500	1.19510	-04.010	-01.500	-00350	-00200	.06280	.00620	.91530	.70740	1.29380
2.500	1.25440	-04.960	-01.660	-00140	-00220	.06180	.00620	.96980	.79600	1.21320
2.500	1.34620	-05.630	-01.710	-00180	-00170	.06100	.00590	1.01420	.89040	1.13900
2.500	1.44180	-06.260	-01.760	-00170	-00160	.06040	.00580	1.05470	.96500	1.07070
2.500	1.5460	-06.670	-01.360	-00150	-00160	.06400	.00600	.80790	.54510	1.46920
2.500	1.6509	-07.021	-00.032	-00001	-00010	-.00003	.00000	.02900	.03644	-.04254

GRADIENT

DATE 28 SEP 73

TABULATED SOURCE DATA - NSFC TMT 574

PAGE 189

NSFC 574 (0448) CRB 1398 (F6)

(R07101) (18 JUL 73)

REFERENCE DATA

BRDF = 2000.0000 58. FT. X/RP = 836.7000 IN.
 LREF = 474.8000 IN. Y/RP = .0000 IN.
 BRDF = 974.7000 IN. Z/RP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 AIRLON = .000 BDFLAP = -22.750
 SPCBRK = 999.990

RUN NO. 410/ 0 RN/L = 4.17 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CN	CLM	CY	CYN	CLB	CA	CAB	CL	CD	L/D
2.990	-1.510	-0.02690	-0.01040	-0.01000	.00150	.00030	.10940	.01810	-.02550	.10970	-.23270
2.990	1.420	.02410	-0.00920	-0.00960	.00150	.00070	.10730	.01850	.02140	.10790	.19890
2.990	3.490	.06260	-0.00910	-0.00900	.00110	-.00010	.10330	.01840	.07610	.10820	.70410
2.990	5.530	.14220	-0.01110	-0.00960	.00090	-.00010	.09840	.01830	.13200	.11160	1.18270
2.990	7.620	.20640	-0.01310	-0.01070	.00090	-.00030	.09330	.01850	.19190	.12150	1.57460
2.990	9.720	.27430	-0.01370	-0.01460	.00070	-.00070	.09200	.01850	.25480	.13700	1.86030
2.990	11.790	.34300	-0.01470	-0.01100	.00060	-.00040	.08970	.01860	.31740	.15790	2.01020
2.990	13.850	.41120	-0.01560	-0.01160	.00040	-.00050	.08500	.01860	.44320	.21570	2.06340
2.990	15.930	.48740	-0.01770	-0.01120	-.00010	-.00010	.08210	.01860	.50990	.25240	2.01960
2.990	18.030	.56300	-0.02030	-0.01030	-.00070	-.00030	.08060	.01860	.57420	.29510	1.94600
2.990	20.010	.64060	-0.02360	-0.01020	-.00070	-.00020	.08200	.01850	.25820	.13760	1.87590
2.990	9.720	.27760	-0.01260	-0.00970	.00110	-.00020	.09200	.01850	.02541	-.00037	.23432
GRADIENT		.02729	.00032	.00025	-.00010	-.00010	-.00153	.00007			

RUN NO. 409/ 0 RN/L = 5.01 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CN	CLM	CY	CYN	CLB	CA	CAB	CL	CD	L/D
4.999	-1.500	-0.03700	-0.02670	-0.02600	.00160	.00050	.08470	.02570	-.03620	.08500	-.42620
4.999	1.390	.00000	-0.02460	-0.01540	.00160	.00030	.08260	.02590	-.00190	.08250	-.02350
4.999	3.420	.04220	-0.02030	-0.01560	.00130	.00010	.07960	.02590	.03740	.08210	.45540
4.999	5.470	.09640	-0.02030	-0.00810	.00030	-.00030	.07570	.02590	.08680	.08450	1.04970
4.999	7.490	.15070	-0.01840	-0.00710	.00150	-.00020	.07340	.02600	.13990	.09240	1.51300
4.999	9.540	.19160	-0.01680	-0.00590	.00090	-.00080	.07120	.02600	.17720	.10270	1.73620
4.999	11.590	.24960	-0.01600	-0.00440	.00010	-.00060	.06960	.02600	.23070	.11830	1.94970
4.999	13.600	.31220	-0.01660	-0.00430	.00060	-.00070	.06860	.02620	.28730	.14010	2.03000
4.999	15.660	.37370	-0.01920	-0.00450	-.00020	.00030	.06720	.02610	.34750	.16730	2.07680
4.999	17.710	.45000	-0.01710	-0.00390	.00030	-.00110	.06690	.02630	.40830	.20070	2.03420
4.999	19.660	.52160	-0.01670	-0.01320	.00000	-.00100	.06610	.02630	.46910	.23790	1.97160
4.999	9.540	.19340	-0.01650	-0.00630	.00030	-.00070	.07140	.02620	.17680	.10250	1.74500
GRADIENT		.02021	.00151	.00010	-.00008	-.00010	-.00125	.00005	.01878	-.00073	.22503

(R07102) (18 JUL 73)

MSFC 574 (0448) ORB 1398 (F0)

REFERENCE DATA

SREF = 2680.0000 88.47. XMRP = 838.7000 IN.
 LREF = 474.8000 IN. YMRP = .0000 IN.
 BREF = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 AIRRON = .000 BDFLAP = 13.750
 SFCBRK = 999.990

RUN NO. 411/ 0 RN/L = 4.16 GRADIENT INTERVAL = -5.00/ 5.00

W/CH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	-1.510	-0.01970	-0.02300	-0.00620	.00130	.00000	.11130	.01870	-.01870	.11150	-.16810
2.990	1.440	-.03660	-.02490	-.00620	.00130	.00000	.10890	.01890	.03380	.10960	.30820
2.990	3.510	.08620	-.02740	-.01000	.00110	.00000	.10520	.01910	.06950	.11090	.80730
2.990	5.590	.15720	-.02990	-.00920	.00100	.00000	.10230	.01920	.14660	.11670	1.25520
2.990	7.620	.22490	-.03420	-.01010	.00080	.00000	.09910	.01930	.20930	.12800	1.63590
2.990	9.770	.29500	-.03810	-.01030	.00110	.00030	.09580	.01910	.27460	.14330	1.90320
2.990	11.790	.36610	-.04110	-.01050	.00080	.00030	.09210	.01900	.33910	.16680	2.03250
2.990	13.680	.43950	-.04500	-.01070	.00060	.00020	.08890	.01910	.40360	.19490	2.07430
2.990	15.990	.51580	-.05170	-.01140	.00030	.00000	.08590	.01920	.47060	.22910	2.03480
2.990	18.030	.58460	-.05990	-.01080	.00060	.00030	.08300	.01920	.53770	.26900	1.99890
2.990	20.010	.67480	-.06820	-.01030	.00110	.00030	.08090	.01920	.60340	.31500	1.91500
2.990	22.700	.78700	-.07640	-.01030	.00110	.00030	.07810	.01910	.67640	.34490	1.90710
2.990	26.860	.92960	-.08110	-.00720	.00000	.00000	.07200	.00010	.72692	-.00014	.24262

GRADIENT

RUN NO. 412/ 0 RN/L = 5.01 GRADIENT INTERVAL = -5.00/ 5.00

W/CH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.999	-1.800	-.03500	-.02950	-.00480	.00120	.00040	.08490	.00550	-.03420	.08520	-.40210
4.999	1.430	.00460	-.02960	-.00250	-.00120	-.00010	.08280	.00570	.00250	.08290	.03080
4.999	3.440	.04740	-.02780	-.00430	.00120	-.00020	.08040	.00580	.04250	.08310	.91190
4.999	5.470	.08590	-.02750	-.00600	.00100	.00000	.07750	.00570	.08610	.08630	1.02070
4.999	7.490	.14980	-.02900	-.00710	.00080	-.00010	.07490	.00570	.13850	.09370	1.47760
4.999	9.540	.20430	-.03060	-.00610	.00070	-.00040	.07310	.00590	.18930	.10800	1.78560
4.999	11.580	.26650	-.03520	-.00730	.00000	-.00060	.07100	.00590	.24660	.12310	2.00350
4.999	13.640	.33360	-.03640	-.00520	.00030	-.00040	.07030	.00620	.30750	.14700	2.09100
4.999	15.670	.40230	-.04170	-.00550	.00040	-.00060	.07070	.00610	.36820	.17670	2.08340
4.999	17.710	.47830	-.04740	-.00570	.00020	-.00130	.07160	.00620	.43380	.21380	2.02880
4.999	19.680	.55260	-.05330	-.00740	.00030	-.00100	.07350	.00620	.49670	.25230	1.96810
4.999	22.700	.67500	-.06220	-.00820	.00000	-.00080	.07240	.00610	.56210	.29210	1.81690
4.999	26.860	.82592	.00041	-.00008	.00000	-.00015	.07114	.00608	.61947	-.00053	.23203

GRADIENT

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TABULATED SOURCE DATA - MSFC TWT 374

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MSFC 374 (0448) ORB 1398 (78)

(087103) (18 JUL 73)

REFERENCE DATA

SREF = 2090.0000 34.17. XMRP = 838.7000 IN.
 LREF = 474.0000 IN. YMRP = .0000 IN.
 BREF = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = 0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 AILPC = .000 BDFLAP = 13.750
 SPDRN = 999.990

RUN NO. 414/ 0 RN/L = 4.10 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	20.850	.68560	-.06960	-.01270	-.00140	-.00060	.09020	.01920	.60960	.32600	1.47060
2.990	22.820	.76630	-.07770	-.01320	-.00200	-.00050	.08970	.01920	.67480	.37850	1.78230
2.990	24.700	.85670	-.08670	-.01290	-.00200	-.00040	.08990	.01950	.74190	.44030	1.68500
2.990	26.770	.94630	-.09450	-.01420	-.00220	-.00050	.08890	.02000	.80660	.50680	1.59210
2.990	28.870	1.04200	-.10210	-.01520	-.00210	-.00050	.08770	.02000	.87110	.57990	1.50020
2.990	30.980	1.13910	-.11190	-.01520	-.00270	-.00050	.08670	.02000	.93200	.66050	1.41090
2.990	33.090	1.24090	-.12160	-.02140	-.00300	-.00040	.08600	.02020	.99250	.74960	1.32400
2.990	35.210	1.35570	-.13020	-.02300	-.00300	-.00040	.08460	.01990	1.04190	.83690	1.24190
2.990	37.280	1.43220	-.13960	-.02450	-.00290	-.00030	.08340	.01990	1.08890	.93400	1.16580
2.990	39.360	1.53070	-.15050	-.02510	-.00120	-.00340	.08250	.01970	1.13070	1.03500	1.09240
2.990	41.370	1.62230	-.16400	-.02570	-.00030	-.00290	.08070	.01950	1.16390	1.13300	1.02720
2.990	50.890	1.14370	-.11090	-.01490	-.00270	-.00050	.08650	.02000	.93380	.66310	1.41110
GRADIENT	.74541	-.00441	-.00070	-.00015	-.00015	-.00015	-.00047	.00002	.02713	.03910	-.04098

RUN NO. 413/ 0 RN/L = 5.02 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.959	20.270	.56930	-.05390	-.00640	-.00050	-.00070	.07370	.00670	.50840	.26640	1.90630
4.959	22.220	.64720	-.05940	-.00660	-.00080	-.00060	.07370	.00600	.57120	.31300	1.82480
4.959	24.270	.73430	-.06740	-.00960	-.00090	-.00100	.07420	.00610	.63890	.36950	1.72870
4.959	26.310	.82780	-.07750	-.01140	-.00170	-.00090	.07410	.00620	.70900	.43330	1.63630
4.959	28.360	.92090	-.08540	-.01090	-.00170	-.00040	.07600	.00630	.77420	.50440	1.57470
4.959	30.440	1.01940	-.09450	-.01370	-.00090	-.00110	.07640	.00640	.84010	.58240	1.44230
4.959	32.500	1.12270	-.10680	-.01620	-.00010	-.00150	.07700	.00630	.90540	.66830	1.35470
4.959	34.600	1.22690	-.12040	-.01750	-.00020	-.00170	.07910	.00610	.96450	.76170	1.26620
4.959	36.620	1.32660	-.13370	-.01840	-.00000	-.00160	.08010	.00600	1.01680	.85570	1.18820
4.959	38.660	1.42960	-.14550	-.01930	-.00120	-.00140	.08070	.00600	1.06500	.95680	1.11370
4.959	40.640	1.52750	-.15440	-.01850	-.00060	-.00130	.08130	.00590	1.10600	1.05670	1.04650
4.959	50.450	1.02280	-.09330	-.01440	-.00080	-.00110	.07610	.00610	.84310	.56390	1.44360
GRADIENT	.04745	-.00511	-.00061	-.00003	-.00003	-.00012	.00042	-.00000	.02990	.03906	-.04300

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TABULATED SOURCE DATA - NSFC TWT 374

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NSFC 574 (0A48) ORB 1398 (F6)

(R07104) (10 JUL 73)

REFERENCE DATA

SREF = 2090.0700 90.0 FT. XREF = 838.7000 IN.
 LREF = 474.8000 IN. YREF = .0000 IN.
 BREF = 936.7000 IN. ZREF = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 AIRON = .000 BDFLAP = .000
 SFDRK = 999.999

RUN NO. 415/ 0 RM/L = 4.06 GRADIENT INTERVAL = -.5.0/ 5.00

ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	20.820	.04400	-.01540	-.00130	-.00070	.06180	.01940	.59510	.31140	1.91080
2.990	22.830	-.05030	-.01420	-.00220	-.00060	.06010	.01940	.66010	.36210	1.82290
2.990	24.700	-.05590	-.01470	-.00250	-.00050	.07860	.01950	.72540	.42030	1.72580
2.990	27.770	-.06220	-.01520	-.00240	-.00070	.07690	.01990	.79010	.48490	1.62940
2.990	28.870	-.06690	-.01700	-.00270	-.00110	.07540	.01980	.85390	.55700	1.53300
2.990	30.990	-.07650	-.01650	-.00270	-.00180	.07360	.02000	.91740	.63700	1.44020
2.990	33.090	-.08330	-.02300	-.00010	-.00210	.07250	.02020	.97820	.72290	1.35030
2.990	35.210	-.09140	-.02480	.00060	-.00210	.07010	.02010	1.02910	.81220	1.26690
2.990	37.290	-.09920	-.02540	.00110	-.00310	.06810	.02000	1.07780	.90680	1.18870
2.990	39.390	-.10620	-.02640	.00110	-.00340	.06540	.01970	1.11940	1.00410	1.11470
2.990	41.390	-.11790	-.02710	-.00220	-.00300	.06370	.01940	1.15630	1.10410	1.04720
2.990	43.900	-.07810	-.01540	-.00250	-.00060	.07370	.02000	.92190	.64000	1.44050
2.990	45.906	-.00350	-.00072	.00016	-.00015	-.00006	.00002	.02742	.03835	-.04208

RUN NO. 416/ 0 RM/L = 4.91 GRADIENT INTERVAL = -.5.00/ 5.00

ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.999	20.270	-.02670	-.00900	.00020	-.00130	.06810	.00580	.49320	.25580	1.93720
4.999	22.260	-.03710	-.00980	-.00040	-.00120	.06770	.00590	.55840	.30130	1.85170
4.999	24.270	-.04330	-.01140	-.00060	-.00140	.06850	.00590	.62900	.35490	1.76110
4.999	26.310	-.04790	-.01250	-.00130	-.00140	.06590	.00610	.69120	.41530	1.66420
4.999	28.370	-.05270	-.01160	-.00120	-.00090	.06380	.00610	.75930	.48480	1.56600
4.999	30.440	-.06090	-.01660	-.00060	-.00190	.06330	.00620	.82420	.56130	1.47110
4.999	32.510	-.06660	-.01750	.00030	-.00210	.06330	.00620	.88760	.64320	1.38000
4.999	34.580	-.08700	-.01850	.00030	-.00210	.06480	.00610	.94480	.72990	1.29440
4.999	36.630	-.08440	-.01980	-.00020	-.00230	.06280	.00600	1.00070	.82220	1.21710
4.999	38.680	-.09560	-.01950	-.00030	-.00220	.06150	.00600	1.04430	.91520	1.14100
4.999	40.640	-.10430	-.02070	-.00040	-.00240	.06150	.00600	1.08750	1.01480	1.07150
4.999	42.690	-.05840	-.01480	-.00010	-.00180	.06570	.00620	.82600	.56190	1.46990
4.999	44.613	-.00371	-.00062	.00002	-.00005	-.00007	.00001	.02959	.03746	-.04317

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TABULATED SOURCE DATA - NSFC TUT 574
NSFC 574(OA48) ORB 1398 (F6)

(R07103) (10 JUL 73)

REFERENCE DATA

SREF = 2000.0000 SQ.FT. XMRP = 836.7000 IN.
LREF = 474.8000 IN. YMRP = .0000 IN.
BREF = 936.7000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
AILRON = .000 BOFLAP = .000
SPDRBK = 999.990

RUN NO. 418/ 0 RV/L = 4.07 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	-0.510	-0.02680	-0.01410	-0.00960	.00150	.00010	.10920	.01800	-.02560	.10840	-.23450
2.990	1.480	.02790	-0.01440	-0.00950	.00150	.00010	.10640	.01840	.02320	.10710	.23920
2.990	3.510	.08760	-0.01680	-0.00950	.00110	.00000	.10310	.01860	.08110	.10630	.74670
2.990	5.550	.14980	-0.01750	-0.00910	.00130	.00000	.09910	.01890	.13630	.11300	1.22340
2.990	7.620	.21470	-0.02040	-0.00960	.00130	-.00010	.09600	.01900	.20010	.12370	1.61730
2.990	9.720	.28310	-0.02400	-0.01080	.00110	-.00010	.09230	.01860	.26340	.13860	1.89780
2.990	11.790	.35540	-0.02660	-0.01140	.00090	-.00000	.08810	.01890	.32940	.18090	2.04750
2.990	13.890	.42590	-0.02960	-0.01200	.00070	-.00000	.08370	.01800	.39230	.26760	2.06390
2.990	15.970	.50190	-0.03310	-0.01300	.00030	-.00000	.07830	.01900	.45900	.22030	2.02910
2.990	18.050	.58560	-0.03990	-0.01420	.00020	-.00000	.07170	.01870	.59170	.30270	1.95440
2.990	20.080	.65960	-0.04330	-0.01520	.00010	-.00000	.06240	.01670	.86600	.13940	1.90630
2.990	9.720	.28310	-0.02360	-0.01020	.00130	-.00000	.09240	.01870	.26600	.13940	1.90630
GRADIENT		.02841	-.00068	.00002	-.00010	-.00003	-.00152	.00019	.02655	-.00027	.24457

RUN NO. 417/ 0 RV/L = 4.91 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.999	-0.510	-0.03980	-0.02970	-0.00600	.00170	.00030	.08430	.00540	-.03900	.08470	-.46100
4.999	1.410	.07340	-0.02750	-0.00680	.00180	.00020	.08270	.00550	.00130	.08260	.01680
4.999	3.440	.04410	-0.02400	-0.00690	.00160	-.00000	.07960	.00580	.03920	.08210	.47760
4.999	5.450	.08590	-0.02280	-0.00650	.00160	-.00020	.07560	.00570	.07830	.08350	.93660
4.999	7.480	.14170	-0.02480	-0.00700	.00060	-.00000	.07260	.00580	.13100	.09070	1.44520
4.999	9.540	.19940	-0.02230	-0.00750	.00040	-.00000	.07170	.00580	.18470	.10360	1.77870
4.999	11.580	.25960	-0.02440	-0.00790	.00030	-.00000	.06920	.00580	.24080	.12000	2.00500
4.999	13.640	.32230	-0.02800	-0.00780	.00010	-.00000	.06660	.00550	.29720	.14270	2.08170
4.999	15.670	.39410	-0.03010	-0.00720	.00010	-.00000	.06690	.00610	.36140	.17090	2.11450
4.999	17.720	.46820	-0.02960	-0.00720	.00000	-.00000	.06550	.00620	.42370	.20590	2.06750
4.999	19.800	.54120	-0.03480	-0.00600	.00020	-.00010	.06310	.00610	.48770	.24340	2.00330
4.999	9.540	.19940	-0.02410	-0.00730	.00060	-.00000	.07100	.00610	.18210	.10260	1.77490
GRADIENT		.02123	.00144	.00026	-.00003	-.00016	-.00119	.00005	.01979	-.00066	.23757

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TABULATED SOURCE DATA - NSFC TWT 574

NSFC 574 (0A48) ORB 1398 W/H19

(087106) (10 JUL 73)

REFERENCE DATA

SRP = 2880.0000 58. FT. YMRP = 838.7000 IN.
 LREF = 474.8000 IN. YMRP = .0000 IN.
 BRP = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = -40.000
 AIRLON = .000 BOFLAP = -14.250
 SPDRK = 999.990 TRIMER = 19.000

RUN NO. 531/ 0 RNL = 4.94 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	ON	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
4.959	20.500	.50450	.03680	-.00320	-.00070	-.00070	.07960	.00540	.40320	.24870	1.78330
4.959	22.230	.57960	.04280	-.00400	-.00060	-.00020	.07860	.00530	.40670	.29220	1.73360
4.959	24.290	.66120	.04480	-.00700	-.00100	-.00040	.07780	.00550	.37080	.34290	1.66420
4.959	26.340	.74220	.05040	-.00750	-.00110	-.00060	.07710	.00540	.63060	.39640	1.58310
4.959	28.360	.82820	.05940	-.00770	-.00130	-.00030	.07630	.00540	.69060	.48000	1.50130
4.959	30.480	.91750	.06160	-.00420	-.00150	-.00000	.07640	.00530	.75200	.53110	1.41590
4.959	32.530	1.01170	.06570	-.01000	-.00040	-.00040	.07590	.00530	.81210	.60610	1.33540
4.959	34.590	1.10080	.06870	-.01250	-.00010	-.00050	.07440	.00530	.86400	.68620	1.25980
4.959	36.650	1.19270	.07560	-.01500	-.00050	-.00060	.07220	.00540	.91370	.77000	1.18670
4.959	38.710	1.28710	.07620	-.01420	-.00020	-.00090	.07020	.00530	.96030	.85960	1.11690
4.959	40.690	1.36480	.07960	-.01510	-.00030	-.00070	.06890	.00530	.99030	.94140	1.05210
4.959	30.470	.98320	.06140	-.00630	-.00130	-.00000	.07700	.00530	.75660	.53450	1.41530
4.959	.04272	.04272	.00212	-.00094	.00024	-.00002	-.00049	-.00000	.02732	.03451	-.03714

GRADIENT

NSFC 574 (0A48) ORB 1398 W/H20

(087107) (10 JUL 73)

REFERENCE DATA

SRP = 2880.0000 58. FT. YMRP = 838.7000 IN.
 LREF = 474.8000 IN. YMRP = .0000 IN.
 BRP = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = -40.000
 AIRLON = .000 BOFLAP = -14.250
 SPDRK = 999.990 TRIMER = 20.000

RUN NO. 532/ 0 RNL = 4.92 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	ON	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
4.959	20.280	.48730	.02290	-.00330	-.00030	-.00060	.07720	.00540	.43030	.24140	1.79280
4.959	22.210	.56020	.02590	-.00490	-.00050	-.00020	.07540	.00550	.49010	.28160	1.74020
4.959	24.260	.64120	.02890	-.00580	-.00070	-.00010	.07270	.00530	.55470	.32980	1.68170
4.959	26.320	.72240	.03120	-.00680	-.00060	-.00000	.07390	.00530	.61470	.38660	1.59010
4.959	28.350	.80450	.03360	-.00710	-.00110	-.00040	.07350	.00540	.67300	.44690	1.50600
4.959	30.430	.89530	.03590	-.00760	-.00110	-.00030	.07210	.00540	.73530	.51570	1.42370
4.959	32.490	.98390	.03690	-.00930	-.00020	-.00010	.07160	.00540	.79130	.58970	1.34330
4.959	34.550	1.07170	.03910	-.01240	-.00040	-.00030	.06990	.00540	.84290	.66530	1.26660
4.959	36.610	1.15740	.04080	-.01280	-.00060	-.00030	.06760	.00540	.88670	.74460	1.19350
4.959	38.670	1.23400	.04300	-.01270	-.00040	-.00010	.06700	.00530	.93690	.83620	1.12030
4.959	40.590	1.33720	.04510	-.01430	-.00050	-.00030	.06480	.00520	.97320	.91930	1.05660
4.959	30.430	.89530	.03750	-.00760	-.00110	-.00040	.07260	.00540	.73500	.51620	1.42390
4.959	.04270	.04270	.03105	-.00054	.00001	-.00000	-.00053	-.00000	.02711	.03356	-.03722

GRADIENT

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TABULATED SOURCE DATA - NSFC TWT 574

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NSFC 574 (0A48) ORB 1398 W4E2

(087108) (18 JUL 73)

REFERENCE DATA

REF = 2680.0000 58.47. XRRP = 838.7000 IN.
 LREF = 474.8000 IN. YRRP = .0000 IN.
 BREF = 936.7000 IN. ZRRP = .0000 IN.
 SCALE = .0040

RUN NO. 553/ 0 RM/L = 4.15 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ON	CLM	CY	CYN	ORL	CA	CAB	CL	CD	L/D
2.990	-10.410	-29420	-0.02470	.14700	.00070	.01180	.09530	.01960	.27390	.14370	1.90580
2.990	-8.490	-28250	-0.02080	.11750	.00060	.00980	.08370	.01930	.27190	.14370	1.99170
2.990	-6.480	-28750	-0.01810	.00530	.00180	.00710	.09600	.01930	.26990	.14320	1.86410
2.990	-4.420	-28290	-0.01570	.05510	.00120	.00480	.09560	.01930	.26280	.14210	1.84890
2.990	-2.380	-28180	-0.01340	.02640	.00110	.00240	.09560	.01930	.26180	.14190	1.84320
2.990	-3.40	-27830	-0.01340	.00460	.00170	.00070	.09540	.01930	.25820	.14100	1.83040
2.990	1.700	-27930	-0.01360	.03730	.00060	.00280	.09560	.01940	.25910	.14180	1.82970
2.990	3.740	-27900	-0.01450	.06590	.00090	.00500	.09640	.01930	.25870	.14210	1.81940
2.990	5.780	-28250	-0.01770	.09780	.00100	.00780	.09540	.01930	.26210	.14180	1.84950
2.990	7.800	-28330	-0.02340	.12890	.00120	.00980	.09560	.01930	.26310	.14210	1.83130
2.990	9.710	-28440	-0.02370	.15980	.00020	.01120	.09540	.01960	.26420	.14200	1.85990
2.990	-3.00	-27860	-0.01300	.00430	.00260	.00010	.09520	.01930	.25830	.14080	1.83420
GRADIENT			.00011	-.01499	-.00004	-.00121	.00009	.00003	-.00030	-.00001	-.00331

NSFC 574 (0A48) ORB 1398 W4E2

(087109) (18 JUL 73)

REFERENCE DATA

REF = 2680.0000 58.47. XRRP = 838.7000 IN.
 LREF = 474.8000 IN. YRRP = .0000 IN.
 BREF = 936.7000 IN. ZRRP = .0000 IN.
 SCALE = .0040

RUN NO. 552/ 0 RM/L = 4.99 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ON	CLM	CY	CYN	ORL	CA	CAB	CL	CD	L/D
4.999	-10.310	-54980	-0.02210	.09640	.01440	.01330	.07290	.00800	.49080	.25790	1.90270
4.999	-8.410	-55250	-0.02230	.07870	.01150	.01090	.07130	.00810	.49400	.25750	1.91060
4.999	-6.400	-55570	-0.02280	.05490	.00960	.00850	.07000	.00830	.49750	.25750	1.93310
4.999	-4.380	-55740	-0.02080	.03260	.00810	.00580	.06930	.00840	.49920	.25750	1.93990
4.999	-2.380	-55820	-0.01870	.01240	.00360	.00270	.06930	.00840	.50000	.25760	1.94120
4.999	-3.40	-55990	-0.01990	.00590	.00060	.00000	.06930	.00830	.50060	.25780	1.94190
4.999	1.680	-55930	-0.01920	.02110	.00460	.00280	.06870	.00840	.50120	.25740	1.94670
4.999	2.700	-55850	-0.02040	.04980	.00730	.00560	.06900	.00850	.49800	.25590	1.93010
4.999	5.730	-55550	-0.02280	.07140	.01060	.00840	.06780	.00840	.49600	.25320	1.93120
4.999	7.790	-55080	-0.02220	.09430	.01360	.01060	.06930	.00850	.49290	.25500	1.93300
4.999	9.840	-54710	-0.02010	.11720	.01800	.01260	.06990	.00860	.49400	.25430	1.92440
4.999	-3.380	-55770	-0.01980	.00690	.00120	.00020	.06580	.00850	.49980	.25690	1.94500
GRADIENT			.00003	-.01007	-.00174	-.00136	-.00016	.00001	.00002	-.00016	.00186

NSFC 574(0448) CRB 1398 W/M22

(087110) (10 JUL 73)

REFERENCE DATA

SWEP = 2680.0000 96. FT. XMRP = 838.7000 IN.
 LMRP = 474.8000 IN. YMRP = .0000 IN.
 SWEP = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 AIRCEN = .000 BOFLAP = .000
 SPORCK = 999.990 TRIMCR = 22.000

RUN NO. 549/ 0 RNVL = 4.12 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CH	CLH	CY	CYN	CEL	CA	CAB	CL	CD	L/O
2.990	-1.530	-0.02870	-0.01360	-0.00670	.00190	.00030	.11060	.01840	-.02760	.11090	-.24990
2.990	1.440	.02590	-0.01180	-0.00820	.00140	-.00010	.10760	.01860	.02310	.10820	.21390
2.990	3.510	.08560	-0.01090	-0.00950	.00110	-.00010	.10400	.01890	.07910	.10900	.72590
2.990	5.560	.15020	-0.01030	-0.00900	.00120	-.00000	.10110	.01890	.13960	.11350	1.21120
2.990	7.630	.21360	-0.01180	-0.00930	.00090	-.00030	.09800	.01920	.20090	.12590	1.99580
2.990	9.720	.27990	-0.01360	-0.01050	.00100	-.00030	.09590	.01940	.29970	.14160	1.85040
2.990	11.800	.34980	-0.01450	-0.01110	.00100	-.00060	.09400	.01960	.32320	.16380	1.97560
2.990	13.880	.42020	-0.01620	-0.01140	.00070	-.00060	.09190	.01980	.38590	.19000	2.03060
2.990	15.960	.49060	-0.01780	-0.00990	.00020	-.00060	.08950	.01960	.43270	.22280	2.03180
2.990	18.020	.57410	-0.02210	-0.01010	-.00030	-.00030	.08650	.01940	.51920	.25960	1.99960
2.990	20.010	.63420	-0.02510	-0.00970	-.00060	-.00030	.08350	.01920	.58610	.30240	1.93600
2.990	9.730	.28470	-0.01310	-0.00990	.00110	-.00040	.09630	.01940	.26430	.14300	1.84740
GRADIENT	.02630	.00071	-.00020	-.00010	-.00010	-.00010	-.00163	.00012	.02642	-.00040	.24159

RUN NO. 548/ 0 RNVL = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CH	CLH	CY	CYN	CEL	CA	CAB	CL	CD	L/O
4.928	-1.480	-0.05630	-0.02790	-0.00670	.00100	.00020	.08540	.00560	-.03950	.08370	-.41480
4.928	1.410	.00330	-0.02490	-0.00480	.00130	.00010	.08360	.00570	.00130	.08360	.01560
4.928	3.460	.04490	-0.02030	-0.00630	.00100	-.00050	.08130	.00590	.03950	.08360	.47160
4.928	5.470	.08330	-0.01690	-0.00040	.00040	-.00050	.08010	.00590	.07750	.08790	.86190
4.928	7.510	.13080	-0.01540	-0.00820	.00010	-.00060	.07770	.00610	.12740	.09510	1.35930
4.928	9.540	.18330	-0.01510	-0.00670	.00030	.00000	.07400	.00610	.17630	.10900	1.89800
4.928	11.560	.25320	-0.01430	-0.00790	.00050	-.00110	.07190	.00630	.23360	.12170	1.93350
4.928	13.630	.32130	-0.01400	-0.00760	.00060	-.00120	.07140	.00630	.29340	.14520	2.03460
4.928	15.690	.39850	-0.01540	-0.00660	.00000	-.00110	.07000	.00620	.35690	.17360	2.06710
4.928	17.700	.46540	-0.01690	-0.00600	.00020	-.00140	.06910	.00640	.42230	.20740	2.09630
4.928	19.650	.53600	-0.01670	-0.00670	-.00010	-.00130	.06900	.00640	.48350	.24590	1.96350
4.928	9.350	.19680	-0.01470	-0.00670	.00030	-.00070	.07420	.00640	.18190	.10560	1.71800
GRADIENT	.02030	.00193	-.00009	-.00000	-.00000	-.00018	-.00104	.00005	.01913	-.00047	.22494

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TABULATED SOURCE DATA - NSFC THT 574

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NSFC 574 (0446) ORB 1398 W/M22

(087111) (18 JUL 75)

REFERENCE DATA

SRZF = 2890.0000 98.47. ZMRP = 836.7000 IN.
 LMRP = 474.9000 IN. YMRP = .0000 IN.
 SRZF = 836.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 ALLCON = .000 BOPLAP = .000
 SPDRK = 999.999 TRIMER = 22.000

RUN NO. 550/ 0 RM/L = 4.11 GRADIENT INTERVAL = -5.00/ 5.00

MACN	ALPHA	ON	CLM	CY	CYN	CSL	CA	CAB	CL	CD	L/D
2.990	20.840	.68680	-.02585	-.01230	-.00180	-.00040	.08440	.01980	.99410	.31400	1.69170
2.990	22.610	.74810	-.03020	-.01280	-.00240	-.00040	.08220	.01920	.99390	.30390	1.61290
2.990	24.680	.83480	-.03480	-.01370	-.00270	-.00040	.08100	.01990	.97490	.42210	1.71610
2.990	26.780	.92430	-.03920	-.01390	-.00280	-.00030	.07920	.01960	.97120	.48910	1.62100
2.990	28.890	1.02050	-.04420	-.01340	-.00340	-.00010	.07760	.01970	.95590	.56110	1.52320
2.990	31.020	1.11570	-.04940	-.01600	-.00320	-.00030	.07510	.01960	.91740	.63930	1.43490
2.990	33.140	1.21390	-.05460	-.01980	-.00350	-.00010	.07310	.01970	.97640	.72490	1.34870
2.990	35.260	1.31090	-.06150	-.02120	-.00340	-.00010	.07160	.01950	1.02680	.81530	1.26160
2.990	37.340	1.40740	-.06740	-.02300	-.00070	-.00020	.06960	.01920	1.07680	.90920	1.18400
2.990	39.440	1.50230	-.07490	-.02490	-.00060	-.00240	.06720	.01830	1.11780	1.00690	1.11020
2.990	41.480	1.59630	-.08180	-.02480	-.00050	-.00250	.06590	.01870	1.15270	1.10830	1.04170
2.990	43.020	1.68170	-.08980	-.01610	-.00360	-.00040	.07310	.01970	.92230	.64280	1.43390
2.990	44.67	.04467	-.02265	-.00069	.00010	-.00011	-.00090	-.00002	.02723	.03823	-.04142

RUN NO. 551/ 0 RM/L = 4.94 GRADIENT INTERVAL = -5.00/ 5.00

MACN	ALPHA	ON	CLM	CY	CYN	CSL	CA	CAB	CL	CD	L/D
4.999	20.280	.58800	-.01680	-.00870	-.00080	-.00130	.08980	.00580	.49370	.25630	1.92440
4.999	22.210	.62870	-.01970	-.00990	-.00190	-.00140	.08690	.00600	.55990	.30140	1.84400
4.999	24.280	.71640	-.02170	-.01030	-.00200	-.00160	.08430	.00600	.62900	.35660	1.75170
4.999	26.300	.80200	-.02340	-.01130	-.00210	-.00140	.08220	.00610	.68890	.41690	1.65340
4.999	28.360	.88480	-.03030	-.01240	-.00240	-.00160	.08780	.00610	.73500	.48900	1.55860
4.999	30.480	.99290	-.03290	-.01300	-.00180	-.00170	.08780	.00600	.62190	.56170	1.46290
4.999	32.320	1.09180	-.04050	-.01680	-.00110	-.00240	.08710	.00590	.68430	.64360	1.37400
4.999	34.820	1.19230	-.04860	-.01810	-.00120	-.00260	.08610	.00580	.94360	.73200	1.28900
4.999	36.880	1.29240	-.05510	-.02760	-.00210	-.00330	.08510	.00590	.99740	.82440	1.21960
4.999	38.740	1.38630	-.06300	-.02110	-.00080	-.00320	.08410	.00580	1.04280	.91900	1.13430
4.999	40.700	1.48300	-.07050	-.02790	-.00280	-.00290	.08390	.00580	1.08430	1.01670	1.06630
4.999	42.480	.99510	-.03580	-.01430	-.00210	-.00190	.08690	.00600	.62360	.56220	1.46520
4.999	44.599	.04599	-.02266	-.00766	.00005	-.00010	-.00028	-.00001	.02940	.03740	-.04270

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TABULATED SOURCE DATA - NSFC TWT 574

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(087112) (18 JUL 73)

NSFC 574 (0448) ORB 139 21

REFERENCE DATA

SRZF = 2880.0000 98.47. XMRP = 934.7000 IN.
 LREF = 474.8000 IN. YMRP = .0000 IN.
 ORZF = 934.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 ELEVTR = -40.000
 AILRON = .000 BDFLAP = -14.250
 SPODRK = 999.990 SPOILR = 1.000

RUN NO. 423/ 0 RNVL = 4.15 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	20.560	.60280	-.01740	-.01740	-.00070	-.00110	.11040	.01990	.52580	.31510	1.06790
2.990	22.540	.67800	-.02030	-.01690	-.00130	-.00090	.10880	.01990	.58450	.36040	1.02150
2.990	24.630	.76140	-.02340	-.01660	-.00170	-.00090	.10740	.01990	.64720	.41920	1.55680
2.990	26.740	.84320	-.02710	-.01900	-.00180	-.00110	.10590	.01980	.70550	.47360	1.48980
2.990	28.850	.92930	-.03190	-.02090	-.00190	-.00160	.10360	.01970	.76400	.53910	1.41720
2.990	30.920	1.01700	-.03320	-.01960	-.00110	-.00170	.10180	.01970	.82700	.60700	1.34600
2.990	33.040	1.10640	-.03700	-.02140	-.00140	-.00190	.09990	.01990	.87250	.68700	1.27080
2.990	35.120	1.19610	-.04040	-.02340	-.00020	-.00240	.09910	.02000	.92130	.76920	1.19770
2.990	37.230	1.28550	-.04360	-.02670	.00010	-.00310	.09660	.01990	.96490	.85440	1.12680
2.990	39.300	1.37240	-.04600	-.02870	.00100	-.00360	.09420	.01980	1.00210	.94230	1.05340
2.990	41.300	1.46030	-.04800	-.03340	.00050	-.00340	.09240	.01970	1.03600	1.03530	1.00280
2.990	43.300	1.54800	-.05000	-.03540	.00050	-.00340	.09240	.01970	.08210	.81320	1.34370
2.990	45.300	1.63500	-.05200	-.03700	-.00090	-.00190	.10170	.01970	.08210	.81320	1.34370
2.990	47.300	1.72200	-.05400	-.03860	.00011	-.00014	-.00066	-.00000	.02491	.03476	-.03503
2.990	49.300	1.80900	-.05600	-.04020	.00011	-.00014	-.00066	-.00000	.02491	.03476	-.03503

GRADIENT

RUN NO. 422/ 0 RNVL = 4.56 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.999	20.230	.51360	-.01980	-.01130	-.00020	-.00200	.09400	.00810	.44930	.26810	1.06430
4.999	22.250	.58390	-.02400	-.01420	-.00050	-.00200	.09280	.00810	.50950	.30880	1.04080
4.999	24.280	.65290	-.02560	-.01230	-.00100	-.00190	.09250	.00800	.56640	.35080	1.38810
4.999	26.300	.74530	-.02660	-.01410	-.00040	-.00210	.09280	.00810	.62700	.41340	1.31680
4.999	28.350	.82930	-.02670	-.01300	-.00060	-.00200	.09320	.00810	.68540	.47800	1.44000
4.999	30.410	.91710	-.02980	-.01610	-.00060	-.00240	.09310	.00820	.74370	.54480	1.38550
4.999	32.470	1.00750	-.03070	-.01710	-.00000	-.00300	.09390	.00830	.79990	.61820	1.29180
4.999	34.530	1.09630	-.03560	-.02020	.00060	-.00280	.09390	.00820	.84990	.69890	1.21820
4.999	36.630	1.18230	-.03860	-.02270	.00040	-.00330	.09400	.00820	.90060	.78700	1.14480
4.999	38.640	1.27630	-.04250	-.02370	.00030	-.00330	.09340	.00810	.94700	.87130	1.07880
4.999	40.610	1.36100	-.04650	-.02270	-.00040	-.00310	.09300	.00800	.97240	.95870	1.01640
4.999	42.590	1.44600	-.05020	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	44.570	1.53100	-.05320	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	46.550	1.61600	-.05620	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	48.530	1.70100	-.05920	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	50.510	1.78600	-.06220	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	52.490	1.87100	-.06520	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	54.470	1.95600	-.06820	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	56.450	2.04100	-.07120	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	58.430	2.12600	-.07420	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	60.410	2.21100	-.07720	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	62.390	2.29600	-.08020	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	64.370	2.38100	-.08320	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	66.350	2.46600	-.08620	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	68.330	2.55100	-.08920	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	70.310	2.63600	-.09220	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	72.290	2.72100	-.09520	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	74.270	2.80600	-.09820	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	76.250	2.89100	-.10120	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	78.230	2.97600	-.10420	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	80.210	3.06100	-.10720	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	82.190	3.14600	-.11020	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	84.170	3.23100	-.11320	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	86.150	3.31600	-.11620	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	88.130	3.40100	-.11920	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	90.110	3.48600	-.12220	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	92.090	3.57100	-.12520	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	94.070	3.65600	-.12820	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	96.050	3.74100	-.13120	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	98.030	3.82600	-.13420	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	100.010	3.91100	-.13720	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	101.990	4.00000	-.14020	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	103.970	4.08900	-.14320	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	105.950	4.17800	-.14620	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	107.930	4.26700	-.14920	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	109.910	4.35600	-.15220	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	111.890	4.44500	-.15520	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	113.870	4.53400	-.15820	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	115.850	4.62300	-.16120	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	117.830	4.71200	-.16420	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	119.810	4.80100	-.16720	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	121.790	4.89000	-.17020	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	123.770	4.97900	-.17320	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	125.750	5.06800	-.17620	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	127.730	5.15700	-.17920	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	129.710	5.24600	-.18220	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	131.690	5.33500	-.18520	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	133.670	5.42400	-.18820	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	135.650	5.51300	-.19120	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	137.630	5.60200	-.19420	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	139.610	5.69100	-.19720	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	141.590	5.78000	-.20020	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	143.570	5.86900	-.20320	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	145.550	5.95800	-.20620	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	147.530	6.04700	-.20920	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	149.510	6.13600	-.21220	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	151.490	6.22500	-.21520	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	153.470	6.31400	-.21820	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	155.450	6.40300	-.22120	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999	157.430	6.49200	-.22420	-.01690	-.00060	-.00310	.09310	.00820	.74820	.34730	1.34700
4.999											

DATE 28 SEP 73

TABULATED SOURCE DATA - NSFC TMT 574

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NSFC 574 (0449) CRB 1398 - FLAP OFF

(087113) (17 SEP 73)

REFERENCE DATA

SREF = 2890.0000 56.71. 2MRP = 836.7000 IN.
 LREF = 474.8000 IN. YMRP = .0000 IN.
 BREF = 936.7000 IN. ZMRP = .0000 IN.
 SCALE = .0040

BETA = .000 GLEYR = .000
 ALLCON = .000 SPOROK = 999.990

PARAMETRIC DATA

RUN NO. 403/ 0 RAVL = 4.06 GRADIENT INTERVAL = -5.00/ 5.00

WCON	ALPHA	ON	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
2.990	-560	-03710	-00990	00325	00000	00050	11010	01810	-03600	11050	-32800
2.990	1.370	01800	-00960	00050	00050	00050	10780	01840	01340	10820	12410
2.990	3.480	07250	-00850	00180	00070	00050	10420	01840	06810	10840	60990
2.990	5.520	13290	-00960	00100	00060	00040	10980	01820	12270	11190	1.09990
2.990	7.560	19250	-01090	00050	00040	00060	09560	01830	18080	12080	1.49990
2.990	9.710	26350	-01250	00050	00030	00050	09030	01830	24410	13370	1.79820
2.990	11.800	33210	-01300	00090	00060	00050	08030	01810	30660	15630	1.96100
2.990	13.900	40170	-01500	00020	00010	00040	08810	01820	36870	18200	2.02340
2.990	15.860	47510	-01600	00020	00040	00040	08830	01820	43500	21380	2.02510
2.990	18.100	55370	-01730	00030	00010	00010	08310	01820	49860	25300	1.97520
2.990	20.040	62630	-01930	00040	00010	00020	08270	01840	56700	29240	1.91470
2.990	9.710	26750	-01180	00040	00130	00030	08270	01820	24800	13650	1.81830
GRADIENT		02726	00035	00035	00017	00000	-00147	00007	02540	-00051	23281

RUN NO. 404/ 0 RAVL = 4.90 GRADIENT INTERVAL = -5.00/ 5.00

WCON	ALPHA	ON	CLM	CY	CYN	CEL	CA	CAB	CL	CD	L/D
4.999	-490	-04810	-02750	00150	00070	00040	08520	00490	-04340	08590	-53030
4.999	1.420	-00960	-02330	00040	00050	00050	08380	00510	-01190	08350	-14230
4.999	3.440	03980	-02190	00050	00070	00030	08080	00530	03100	08260	37800
4.999	5.470	08230	-01830	00050	00060	00030	07670	00530	07460	08420	88590
4.999	7.500	13150	-01990	00080	00020	00040	07370	00520	12060	09020	1.33850
4.999	9.540	18710	-01540	00010	00010	00010	07210	00530	17250	10220	1.68820
4.999	11.600	24290	-01460	00170	00030	00010	07110	00550	22360	11650	1.88840
4.999	13.820	30550	-01670	00010	00010	00020	06880	00540	28050	13680	2.02130
4.999	15.680	37120	-01570	00060	00010	00010	06750	00430	33920	16500	2.05510
4.999	17.710	44370	-01490	00020	00020	00010	06690	00510	40250	19870	2.02420
4.999	19.650	51240	-01520	00030	00010	00030	06670	00540	46910	23520	1.95820
4.999	9.540	18790	-01520	00140	00060	00020	07200	00530	17340	10220	1.69810
GRADIENT		02068	00142	00024	00000	00000	-00117	00010	01946	-00076	25186

TABULATED SOURCE DATA - NSFC TWT 574

NSFC 574 (0448) ORB 1398 - FLAP OFF

(087114) (17 SEP 73)

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
 AIRLON = .000 SPDORK = 999.990

REFERENCE DATA

SRCP = 2890.0000 58.471. YMRP = 836.7000 IN.
 LREF = 474.8000 IN. YMRP = .0000 IN.
 SRCP = 936.7000 IN. YMRP = .0000 IN.
 SCALE = .0040

RUN NO. 402/ 0 RN/L = 4.06 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
2.990	20.610	.62940	-.01930	-.00690	-.00010	.00010	.06240	.01630	.58010	.29870	1.87520
2.990	22.370	.70010	-.02140	-.00710	-.00040	.00010	.06010	.01820	.62130	.34300	1.80040
2.990	24.680	.76950	-.02360	-.00840	-.00030	.00000	.07810	.01790	.68490	.40090	1.71000
2.990	26.750	.87580	-.02500	-.00890	-.00030	-.00010	.07670	.01800	.74730	.46270	1.61500
2.990	28.830	.96290	-.02740	-.01020	-.00020	-.00010	.07520	.01830	.80770	.53090	1.52110
2.990	30.970	1.05310	-.03010	-.01040	-.00090	.00040	.07350	.01870	.86510	.60370	1.42990
2.990	33.080	1.14640	-.03320	-.01530	-.00120	-.00030	.07240	.01930	.92250	.68770	1.34120
2.990	35.170	1.24220	-.03670	-.01560	-.00090	-.00040	.07200	.01980	.97380	.77460	1.23700
2.990	37.270	1.33280	-.04170	-.01770	-.00100	-.00120	.07020	.02020	1.01790	.86290	1.17950
2.990	39.390	1.42540	-.04540	-.01990	-.00160	-.00150	.06820	.02010	1.05830	.95730	1.10540
2.990	41.520	1.50860	-.04910	-.02060	-.00120	-.00100	.06620	.01990	1.08930	1.04590	1.04140
2.990	31.030	1.08100	-.02670	-.01060	-.00120	.00030	.07320	.01890	.87120	.60920	1.43080
2.990	.04275	.00143	-.00143	-.00073	.00010	-.00007	-.00071	.00012	.02595	.03636	-.04106

RUN NO. 401/ 0 RN/L = 4.91 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CBL	CA	CAB	CL	CD	L/D
4.999	20.280	.52450	-.01450	-.00520	-.00020	-.00030	.06630	.00510	.46630	.24580	1.90550
4.999	22.210	.59760	-.01530	-.00600	-.00040	-.00040	.06720	.00500	.52780	.29810	1.83160
4.999	24.240	.66030	-.01660	-.00690	-.00070	-.00010	.06630	.00500	.59370	.35990	1.74470
4.999	26.320	.76780	-.01750	-.00870	-.00060	-.00030	.06630	.00500	.65870	.39990	1.64720
4.999	28.360	.85600	-.01940	-.00840	-.00060	.00000	.06700	.00520	.72320	.46660	1.54970
4.999	30.440	.94960	-.02070	-.00750	-.00060	.00000	.06670	.00540	.78540	.53820	1.45940
4.999	32.520	1.04380	-.02470	-.01270	-.00000	-.00020	.06580	.00530	.84470	.61670	1.36960
4.999	34.580	1.13780	-.02860	-.01250	-.00000	-.00030	.06460	.00540	.90000	.69900	1.28790
4.999	36.620	1.23320	-.03410	-.01440	-.00000	.00060	.06440	.00530	.95130	.78730	1.20620
4.999	38.690	1.32790	-.04140	-.01620	-.00040	.00020	.06290	.00520	.99700	.87930	1.13360
4.999	40.640	1.42150	-.04310	-.01730	-.00030	-.00040	.06250	.00510	1.03710	.97330	1.06640
4.999	.98230	.02120	-.02120	-.01020	-.00010	-.00020	.06620	.00530	.78740	.53980	1.45900
4.999	.04428	.00145	-.00145	-.00060	.00001	-.00001	-.00025	.00001	.02836	.03567	-.04209